

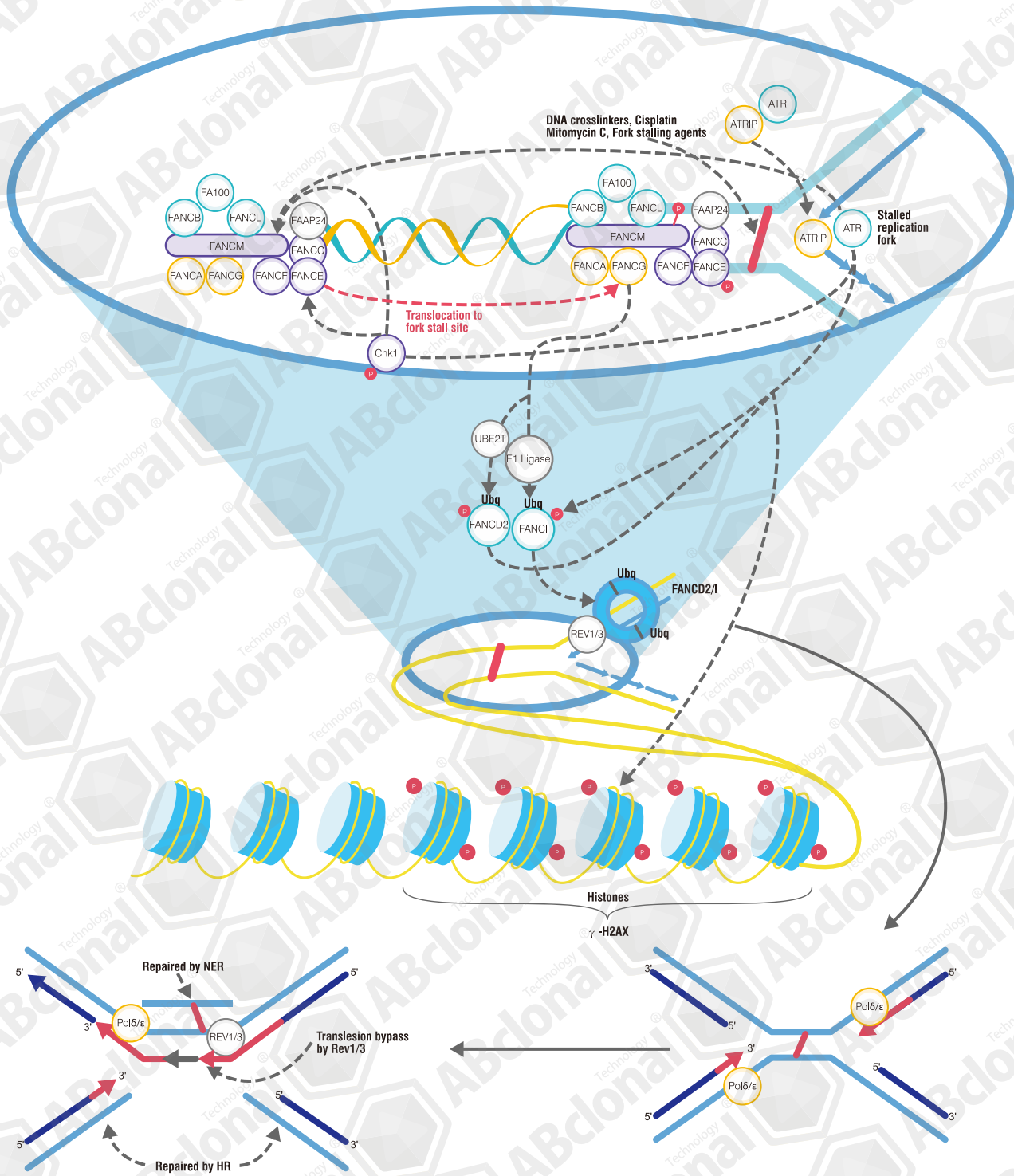


# DNA Damage & Repair

## ABclonal Antibody (III)

DNA repair is a collection of processes by which a cell identifies and corrects damage to the DNA molecules that encode its genome.

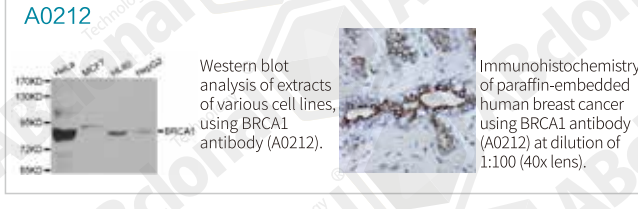
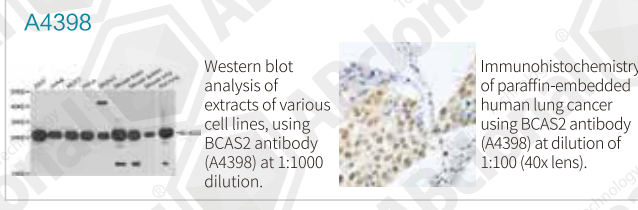
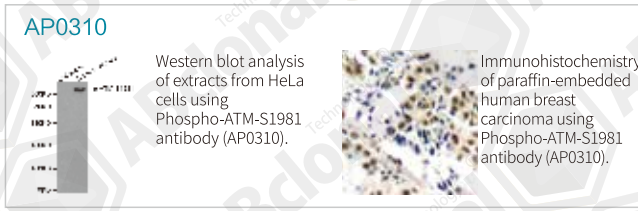
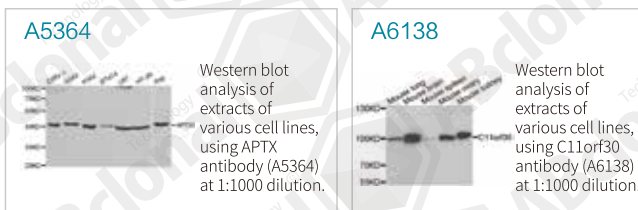
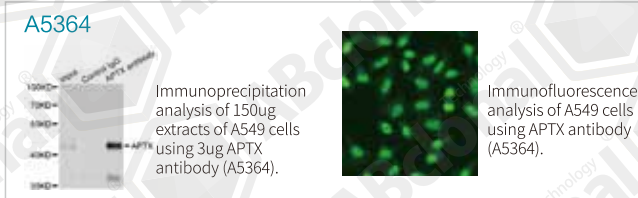
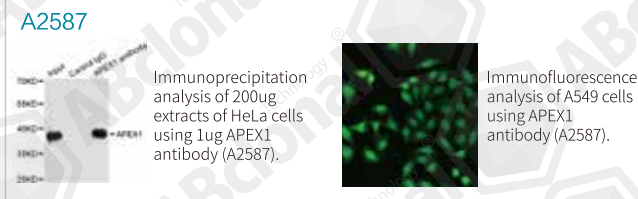
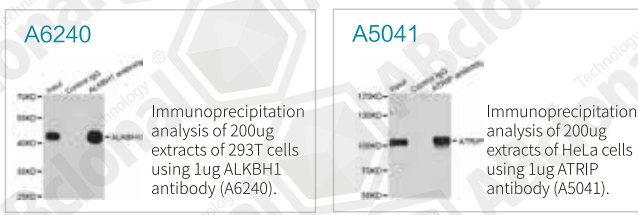
# DNA Strand Crosslink Repair



Covalent cross-linking between DNA strands can easily block DNA replication, transcription, and recombination. It is one of the most toxic types of DNA damage – easily killing cells that are replicating. One of the causes of cancer is the lack of ability to repair cross-links between DNA strands. For example, researchers have found that the main reason for the high probability of cancer in patients with Fanconi anemia is caused by the loss of this ability.

## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A0899	AICDA	WB IHC	H M R
A6240	ALKBH1	WB IP	H
A5808	ALKBH3	WB	H M R
A9223	ALKBH5	WB	H
A2331	ALKBH7	WB	H M R
A8365	ANKRD28	WB	H M
A8379	ANKRD52	WB IHC	H M R
A0476	APEX1	WB IHC IF	H
A1117	APEX1	WB IHC IF	H
A2587	APEX1	WB IF IP	H
A8293	APITD1	WB	H
A5364	APTX	WB IF IP	H M
A15645	ATM	IF	H
AP0310	Phospho-ATM-S1981	WB IHC	H
A5908	ATM	WB	H
A10745	ATM	WB IF	H
A12885	ATP23	WB	M R
A5041	ATRIP	WB IF IP	H
A7139	ATRIP	WB IP	H M
A4398	BCAS2	WB IHC	H M R
A9912	BRAP	WB	H
A11318	BRCA1	WB	H
A11034	BRCA1	WB	H M
A0212	BRCA1	WB IHC IF	H M
AP0317	Phospho-BRCA1-S1524	IHC	H
AP0232	Phospho-BRCA1-S1423	WB IF	H
A11549	BRCA1	WB IHC	H M R
A4965	BRCC3	WB	H
A6804	BRIP1	WB	H M R
A6138	C11orf30	WB IF	H M
A8591	C17orf70	WB	H M R
A8928	CCDC6	WB	H
A16075	CCDC6	WB	H M
A0995	CCNH	WB IP	H
A0107	CCNH	WB FC	H
A5560	CDC5L	WB IHC IF	H M
A6806	CDK7	WB IHC IP	H R
A12942	CDK7	WB	H M R

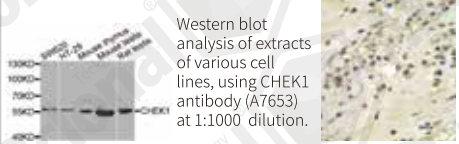




## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A7279	CEBPG	WB IHC IF	H M R
A9174	CEP63	WB IHC	H
A5397	CETN2	WB IF	H M R
A7653	CHEK1	WB IHC IF	H M R
AP0179	Phospho-CHEK1-S280	WB	H
AP0831	Phospho-CHEK1-S296	IF	H
A2145	CHEK2	WB IHC IF	H M R
A0466	CHEK2	WB IHC IF IP	H M
A0465	CHEK2	WB IHC IF FC	H
AP0331	Phospho-CHEK2-S516	WB	H
A6807	CRY1	WB IHC	H M R
A13666	CRY1	WB IHC	H M
A6890	CRY1	WB	H M R
A3809	CRY2	WB IHC	H M
A2882	CUL4A	WB	H M
A6199	CUL4A	WB	H M
A12696	CUL4B	WB	H M
A5369	CUL5	WB IF	H M
A3827	DDB1	WB	H M R
A2896	DDB1	WB IHC	H M R
A1848	DDB2	WB IF	H M R
A4491	DMC1	WB	H M
A6254	DNTT	WB	M R
A3840	DUT	WB IHC	H
A2901	DUT	WB	H
A8375	EME1	WB	M R
A0777	ERCC1	WB	H
A5291	ERCC1	WB IF	H M
A1332	ERCC2	WB	H
A14563	ERCC2	WB	H M R
A8119	ERCC4	WB IP	H M R
A13144	ERCC6L2	WB	H M
A6809	ERCC8	WB IHC	H M
A6884	ERCC8	WB	M
A6810	EXO1	WB IF	H
A7671	FANCA	WB IHC	H
A1812	FANCC	WB IHC IF	H M R
A2072	FANCD2	WB IF	H

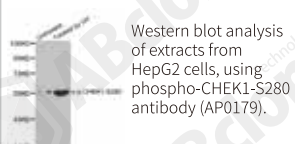
**A7653**



Western blot analysis of extracts of various cell lines, using CHEK1 antibody (A7653) at 1:1000 dilution.

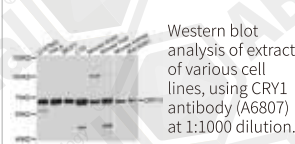
Immunohistochemistry of paraffin-embedded human kidney cancer using CHEK1 antibody (A7653) at dilution of 1:100 (40x lens).

**AP0179**



Western blot analysis of extracts from HepG2 cells, using phospho-CHEK1-S280 antibody (AP0179).

**A6807**



Western blot analysis of extracts of various cell lines, using CRY1 antibody (A6807) at 1:1000 dilution.

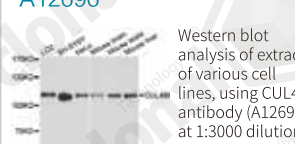
**A2145**



Western blot analysis of extracts of various cell lines, using CHEK2 antibody (A2145) at 1:1000 dilution.

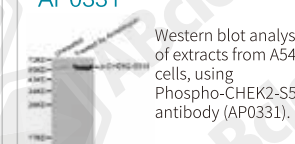
Immunofluorescence analysis of A549 cells using CHEK2 antibody (A2145).

**A12696**




Western blot analysis of extracts of various cell lines, using CUL4B antibody (A12696) at 1:3000 dilution.

**AP0331**



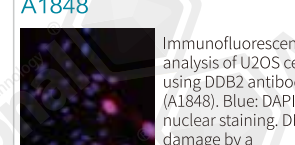
Western blot analysis of extracts from A549 cells, using Phospho-CHEK2-S516 antibody (AP0331).

**A2896**



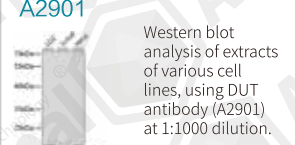
Western blot analysis of extracts of various cell lines, using DDB1 Antibody (A2896) at 1:500 dilution.

**A1848**



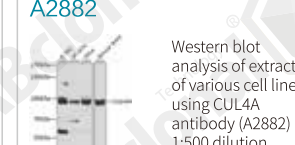
Immunofluorescence analysis of U2OS cells using DDB2 antibody (A1848). Blue: DAPI for nuclear staining. DNA damage by a UV-A laser.

**A2901**



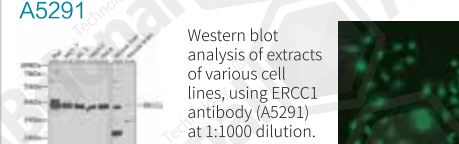
Western blot analysis of extracts of various cell lines, using DUT antibody (A2901) at 1:1000 dilution.

**A2882**



Western blot analysis of extracts of various cell lines, using CUL4A antibody (A2882) at 1:500 dilution.

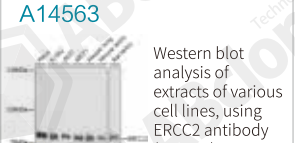
**A5291**



Western blot analysis of extracts of various cell lines, using ERCC1 antibody (A5291) at 1:1000 dilution.


Immunofluorescence analysis of HeLa cells using ERCC1 antibody (A5291).

**A14563**



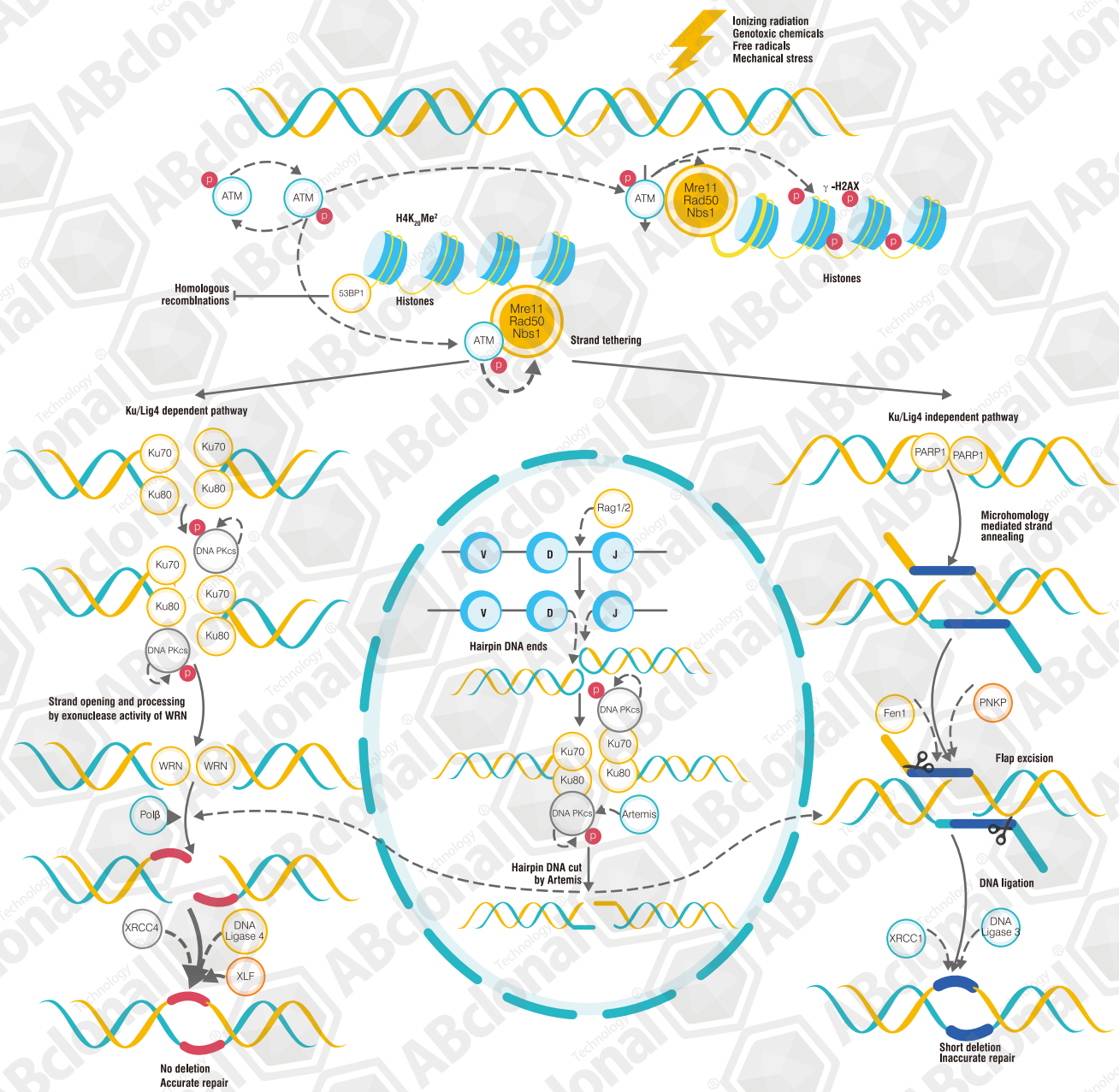
Western blot analysis of extracts of various cell lines, using ERCC2 antibody (A14563) at 1:1000 dilution.

**A2072**



Immunofluorescence analysis of MCF-7 cells using FANCD2 antibody (A2072). Blue: DAPI for nuclear staining.

# Nonhomologous End-Joining



DNA double strand break (DSB) – a common type of cell damage – can be repaired by homologous recombination (HR) or non-homologous end joining (NHEJ). In NHEJ, the end of the DSB is first recognized by Ku. It is then processed by nuclease and polymerase with the aid of Ku and DNA-PKcs. Finally, the DSB is ligated by the IV-XRCC4-XLF ligase. Among these processes, Ku plays a clearer role in the initial identification and recruitment process, while the order of the subsequent processes is less clear.



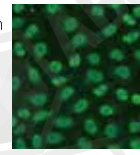
## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A0521	FANCD2	WB	H
A8417	FANCE	WB	M
AP0833	Phospho-FANCG-S383	IF	H
A3447	FANCI	WB	H
A6812	FANCL	WB IHC	H M
A5406	FBP1	WB IF	H M
A1175	FEN1	WB IHC IF IP	H M
A0129	FEN1	WB IF	H
A10001	GEN1	WB	H M
A4503	GPN1	WB	H
A12167	GPN1	WB	H M R
A3901	GPS2	WB IP	H M
A6814	GTF2H1	WB	H M R
A7188	GTF2H3	WB IF IP	H M R
A8425	GTF2H4	WB	H M
A11463	H2AFX	WB IF	H M R
A11097	H2AFX	WB IF	H M
A11361	H2AFX	WB IHC IF	H M R
A0823	H2AFX	WB IHC	H
A1479	H2AFX	WB IHC ICC	H M R Mk
A11516	H2AFX	WB IHC	H M R
A11517	H2AFX	WB	H M
A2082	H2AFX	WB	H M R
A11540	H2AFX	WB	H M R
AP0617	Phospho-H2AFX-S2	WB	H R
AP0099	Phospho-H2AFX-S139	WB IF	H M R
AP0245	Phospho-H2AFX-S139	WB	H M
AP0640	Phospho-H2AFX-S139	WB IHC IF IP	H M R
A8600	HFM1	WB	H R
A3299	HIST1H1C	WB	H
A8353	HLTF	WB	H
A0718	HMGB1	WB FC	H M R
A0719	HMGB1	WB IHC FC	H M R
A2553	HMGB1	WB IHC IF	H M R
A10889	HMGB1	WB IHC IF	H M R
A16001	Acetyl-HMGB1-K28	WB	H M R
A16002	Acetyl-HMGB1-K29	WB	H M R
A16003	Acetyl-HMGB1-K30	WB	H M R

### A1175



Immunoprecipitation analysis of 200ug extracts of HeLa cells using IgG FEN1 antibody (A1175).

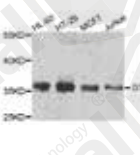


Immunofluorescence analysis of HeLa cells using FEN1 antibody (A1175).

### A7188

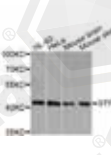


Immunoprecipitation analysis of 200ug extracts of HT-29 cells using IgG GTF2H3 antibody (A7188).



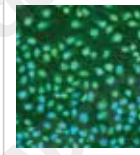
Western blot analysis of extracts of various cell lines, using GTF2H3 antibody (A7188) at 1:1000 dilution.

### A8425



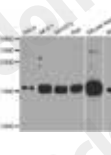
Western blot analysis of extracts of various cell lines, using GTF2H4 antibody (A8425) at 1:1000 dilution.

### A11361



Immunofluorescence analysis of U2OS cells using H2AFX antibody (A11361) at dilution of 1:100. Blue: DAPI for nuclear staining.

### A11361

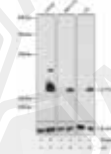


Western blot analysis of extracts of various cell lines, using H2AFX antibody (A11361) at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded mouse kidney using H2AFX antibody (A11361) at dilution of 1:100 (40x lens).

### AP0099

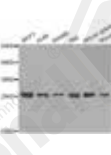


Western blot analysis of extracts of various cell lines, using Phospho-H2A.X-S139 antibody (AP0099) at 1:1000 dilution.



Immunofluorescence analysis of U2OS cells using Phospho-H2AFX-S139 antibody (AP0099).

### A2553



Western blot analysis of extracts of various cell lines, using HMGB1 antibody (A2553) at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded rat brain using HMGB1 Antibody (A2553) at dilution of 1:100 (40x lens).

### A2553



Immunofluorescence analysis of HeLa cells using HMGB1 antibody (A2553) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

### A5406



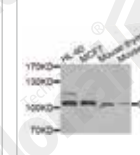
Western blot analysis of extracts of various cell lines, using FBP1 antibody (A5406) at 1:1000 dilution.

### A6814



Western blot analysis of extracts of various cell lines, using GTF2H1 antibody (A6814) at 1:1000 dilution.

### A10001



Western blot analysis of extracts of various cell lines, using GEN1 antibody (A10001) at 1:1000 dilution.

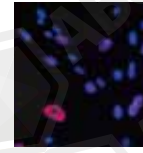
## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A16004	Acetyl-HMGB1-K90	WB	H M R
A16005	Acetyl-HMGB1-K177	WB	H M R
A13938	HUS1	WB IHC	H M R
A5407	HUS1	WB IF IP	H M
A6817	HUS1B	WB	H M R
A14655	HUS1B	WB IHC	M R
A1858	LIG1	WB IHC IF	H M
A13507	LIG3	WB IHC	H M R
A1887	LIG3	WB IF IP	H
A5409	LIMK2	WB	H M
AP0388	Phospho-LIMK2-T505	WB IHC IF	H M R
A0693	MGMT	WB IF	H M R
A3961	MLH1	WB FC	H
A12981	MLH1	WB	H
A10944	MMS19	WB	H
A1918	MNAT1	WB IP	H M
A7071	MORF4L1	WB IF	H M R
A3665	MORF4L1	WB	H
A5410	MPG	WB IF	H M R
A14026	MRE11A	WB	H R
A2559	MRE11A	WB	H M
A0064	MSH2	WB IF FC	H
A1121	MSH2	WB IP	H M R
A5681	MSH3	WB	H
A2765	MSH3	WB IHC	H M R
A8556	MSH4	WB	M R
A0983	MSH6	WB IHC IF	H M Mk
A3177	MSH6	WB IF	H M
A11354	MTOR	WB IHC IF	H M R
A0380	MTOR	WB IHC IF	H
A2445	MTOR	WB IF IP	H M R
A11355	MTOR	WB IHC	H M R
AP0409	Phospho-mTOR-S2448	WB IHC IF	H
AP0094	Phospho-mTOR-S2448	WB	H M R
A11928	MTOR	WB IHC IF IP	H M R
A6818	MUS81	WB IHC	H M R
A2265	MUTYH	WB IF FC	H M
A4429	MYBBP1A	WB IHC	H M R

### A5407



Western blot analysis of extracts of various cell lines, using HUS1 antibody (A5407) at 1:1000 dilution.



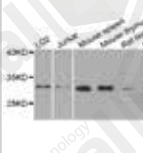
Immunofluorescence analysis of U2OS cells using HUS1 antibody (A5407). Blue: DAPI for nuclear staining.

### A5407



Immunoprecipitation analysis of 200ug extracts of 293T cells using 1ug HUS1 antibody (A5407).

### A6817

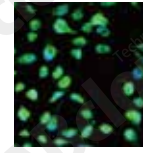


Western blot analysis of extracts of various cell lines, using HUS1B antibody (A6817) at 1:1000 dilution.

### A1887

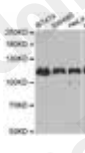


Immunoprecipitation analysis of 200ug extracts of Jurkat cells using 1ug LIG3 antibody (A1887).



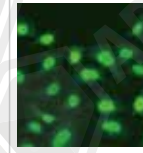
Immunofluorescence analysis of MCF-7 cells using LIG3 antibody (A1887).

### A1887



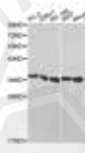
Western blot analysis of extracts of various cell lines, using LIG3 antibody (A1887) at 1:1000 dilution.

### A5410



Immunofluorescence analysis of A549 cells using MPG antibody (A5410).

### A1918



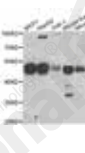
Western blot analysis of extracts of various cell lines, using MNAT1 antibody (A1918) at 1:1000 dilution.

### A1918

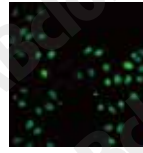


Immunoprecipitation analysis of 200ug extracts of 293T cells using 1ug MNAT1 antibody (A1918).

### A7071



Western blot analysis of extracts of various cell lines, using MORF4L1 antibody (A7071) at 1:1000 dilution.



Immunofluorescence analysis of A549 cells using MORF4L1 antibody (A7071).

### A1121



Western blot analysis of extracts of various cell lines, using MSH2 antibody (A1121) at 1:1000 dilution.

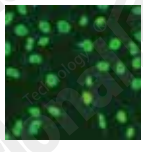


Immunoprecipitation analysis of 150ug extracts of A549 cells using 3ug MSH2 antibody (A1121).

### A0983



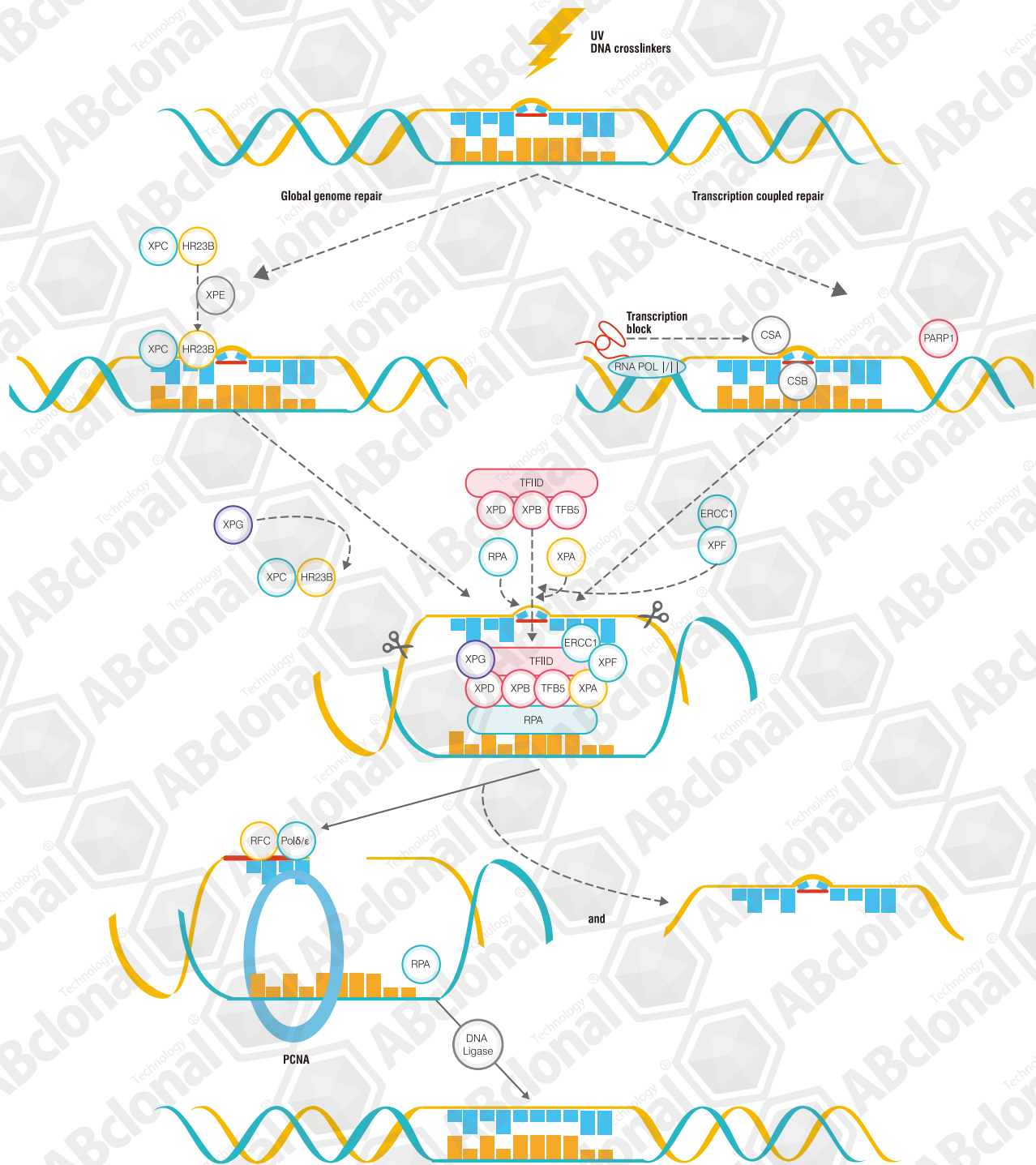
Immunohistochemistry of paraffin-embedded human colon using MSH6 antibody (A0983) at dilution of 1:100 (40x lens).



Immunofluorescence analysis of A549 cells using MSH6 antibody (A0983).



# Nucleotide Excision Repair



Nucleotide excision repair (NER) mainly repairs DNA damage that affects regional chromosomal structures, including UV-induced pyrimidine dimer, molecule-DNA-binding/protein-DNA-binding (DNA adducts), or DNA-DNA binding (DNA cross-link). Without these forms of damage being ruled out in time, DNA polymerases will not be able to identify and thus they will stay at the damage site. When this happens, the cells will then activate the cell cycle checkpoint to completely stop the cell cycle.

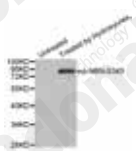


## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A7703	NBN	WB IF	H M R
A0783	NBN	WB	H M
AP0413	Phospho-NBN-S343	WB	H
A4985	NHEJ1	WB IHC	H M R
A11966	NOX1	WB	R
A12309	NOX1	WB	M R
A15966	NSMCE1	WB	H R
A6820	NTHL1	WB	H
A5474	NUDT1	WB IHC	H M R
A13330	NUDT1	WB IHC IP	H
A8368	NUDT15	WB IHC	H
A14141	NUDT15	WB	M R
A10313	OTUB1	WB	H M
A8373	PALB2	WB	H
A10017	PAPD7	WB	H M R
A2432	PARP1	WB IF IP	H M R Mk
A0942	PARP1	WB IHC	H M R
A0010	PARP1	WB	H M
A4360	PARP3	WB	H
A8343	PARP4	WB	H M R
A9065	PAXIP1	WB	H
A13336	PCNA	WB IF	H M R
A4006	PCNA	WB IHC IF FC	H M R
A0264	PCNA	WB IHC	H M R
A9909	PCNA	WB IHC ICC IP	H M R Hm Mk
A8449	PER1	WB IHC IF	H M R
A5654	PIAS2	WB	H M
A14442	PLK5	WB	H R
A3627	PLS3	WB IHC	H M R
A2183	PMS1	WB	H M R
A6947	PMS2	WB IF	H M R
A13680	PMS2	WB IF IP	H
A6693	PNKP	WB IHC IF	H M R
A1681	POLB	WB IF	H M R
A5323	POLD1	WB IHC IF	H M R
A6834	POLD2	WB	H M R
A7243	POLD3	WB IHC IF	H M
A8506	POLD4	WB	H

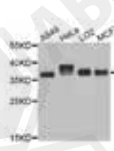
### AP0413

Western blot analysis of extracts from HeLa cells, using Phospho-NBN-S343 antibody (AP0413).



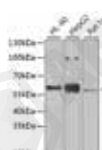
### A6820

Western blot analysis of extracts of various cell lines, using NTHL1 antibody (A6820) at 1:1000 dilution.



### A6693

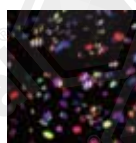
Western blot analysis of extracts of various cell lines, using PNKP antibody (A6693) at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded human lung cancer using PNKP antibody (A6693) at dilution of 1:100 (40x lens).

### A6693

Immunofluorescence analysis of GFP-RNF168 transgenic U2OS cells using PNKP antibody (A6693).



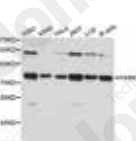
### A13330

Immunoprecipitation analysis of 200ug extracts of 293T cells using 1ug NUDT1 antibody (A13330).



### A4360

Western blot analysis of extracts of various cell lines, using PARP3 antibody (A4360) at 1:1000 dilution.



### A5323

Immunofluorescence analysis of U2OS cells using POLD1 antibody (A5323).



### A0264

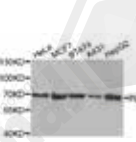
Western blot analysis of extracts of various cell lines, using PCNA antibody (A0264) at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded human stomach using PCNA antibody (A0264) at dilution of 1:100 (40x lens).

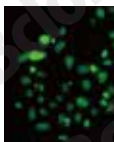
### A3627

Western blot analysis of extracts of various cell lines, using PLS3 antibody (A3627) at 1:1000 dilution.



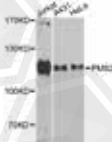
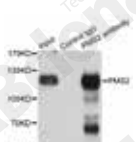
### A13680

Immunofluorescence analysis of U2OS cells using PMS2 antibody (A13680).



### A13680

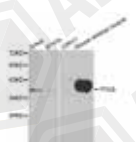
Immunoprecipitation analysis of 150ug extracts of Jurkat cells using 3ug PMS2 antibody (A13680).



Western blot analysis of extracts of various cell lines, using PMS2 antibody (A13680) at 1:1000 dilution.

### A1681

Western blot analysis of extracts of various cell lines, using POLB antibody (A1681) at 1:1000 dilution.

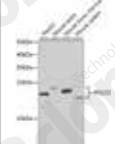


Immunofluorescence analysis of U2OS cells using POLB antibody (A1681).

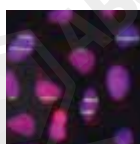
## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A12842	POLE2	WB	H M
A6469	POLE3	WB IF	H M
A9882	POLE4	WB	H
A1833	POLH	WB IF	H M R
A11967	POLK	WB	H M R
A12052	POLK	WB	H M
A8408	POLL	WB	H M R
A11181	POLR2A	WB IHC	H M R
A2107	POLR2A	WB IF	H M R
AP0749	Phospho-POLR2A-S2	WB	H
AP0828	Phospho-POLR2A-S5	WB	H M
A5928	POLR2B	WB IHC	H M R
A1785	POLR2C	WB IP	H M
A1859	POLR2D	WB IF IP	H M
A1755	POLR2E	WB IHC IF	H M
A6837	POLR2F	WB	R
A6838	POLR2G	WB	H M R
A4030	POLR2H	WB	H M
A13339	POLR2H	WB IF IP	H M
A6948	POLR2H	WB IP	H M R
A1865	POLR2I	WB	H M
A1843	POLR2J	WB IF	H M
A13531	PPP4C	WB IF IP	H M
A2109	PPP4C	WB IHC IF IP	H M R
A8361	PPP4R1	WB IHC	H M
A6850	PPP4R3B	WB	H
A4515	PPP6R1	WB	H M
A8359	PPP6R2	WB	H
AP0434	Phospho-PRKDC-T2609	WB	H
A7716	PRKDC	WB IHC	H M
A1419	PRKDC	WB	H M
A6706	PRPF19	WB IHC	H M R
A3419	PRPF19	WB IHC FC	H M
A12590	PRPF19	WB IHC	H M R
A5359	RAD17	WB IF IP	H
A5380	RAD18	WB	H M
A3188	RAD23A	WB	H M
A1034	RAD23B	WB IHC IF	H M

**A6469**

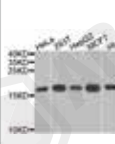


Western blot analysis of extracts of various cell lines, using POLE3 antibody (A6469) at 1:1000 dilution.




Immunofluorescence analysis of U2OS cells using POLE3 antibody (A6469).

**A9882**




Western blot analysis of extracts of various cell lines, using POLE4 antibody (A9882) at 1:1000 dilution.

**A12590**




Immunohistochemistry of paraffin-embedded human lung cancer using PRPF19 antibody (A12590) at dilution of 1:100 (40x lens).

**A1833**

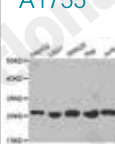


Western blot analysis of extracts of various cell lines, using POLH antibody (A1833) at 1:1000 dilution.

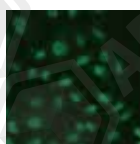


Immunofluorescence analysis of GFP-RNF168 transgenic U2OS cells using POLH antibody (A1833).

**A1755**

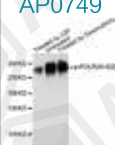


Western blot analysis of extracts of various cell lines, using POLR2E antibody (A1755) at 1:1000 dilution.



Immunofluorescence analysis of A549 cells using POLR2E antibody (A1755).

**AP0749**




Western blot analysis of extracts of 293T cells, using Phospho-POLR2A-S2 antibody (AP0749) at 1:1000 dilution.

**A6838**

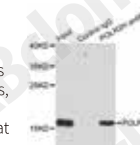


Western blot analysis of extracts of various cell lines, using POLR2G antibody (A6838) at 1:1000 dilution.

**A6948**




Western blot analysis of extracts of various cell lines, using POLR2H antibody (A6948) at 1:1000 dilution.

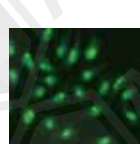


Immunoprecipitation analysis of 200ug extracts of MCF7 cells using 1ug POLR2H antibody (A6948).

**A1859**




Western blot analysis of extracts of various cell lines, using POLR2D antibody (A1859) at 1:1000 dilution.



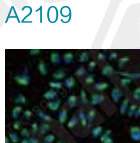
Immunofluorescence analysis of A549 cells using POLR2D antibody (A1859).

**A1859**



Immunoprecipitation analysis of 200ug extracts of HepG2 cells using 1ug POLR2D antibody (A1859).

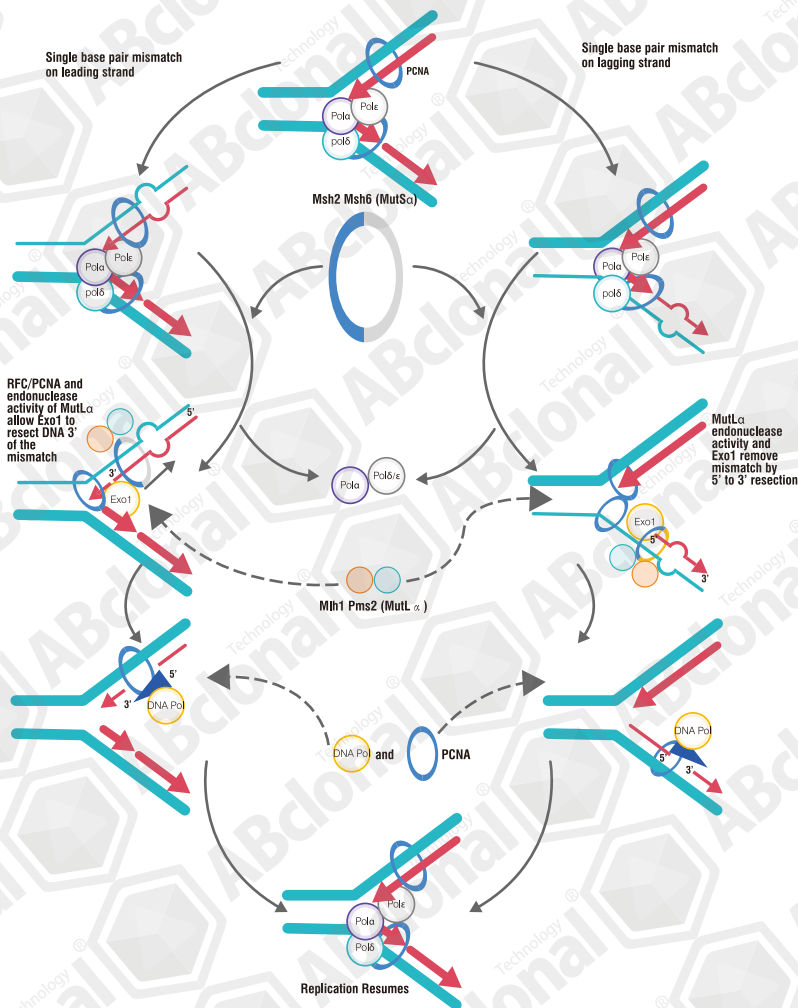
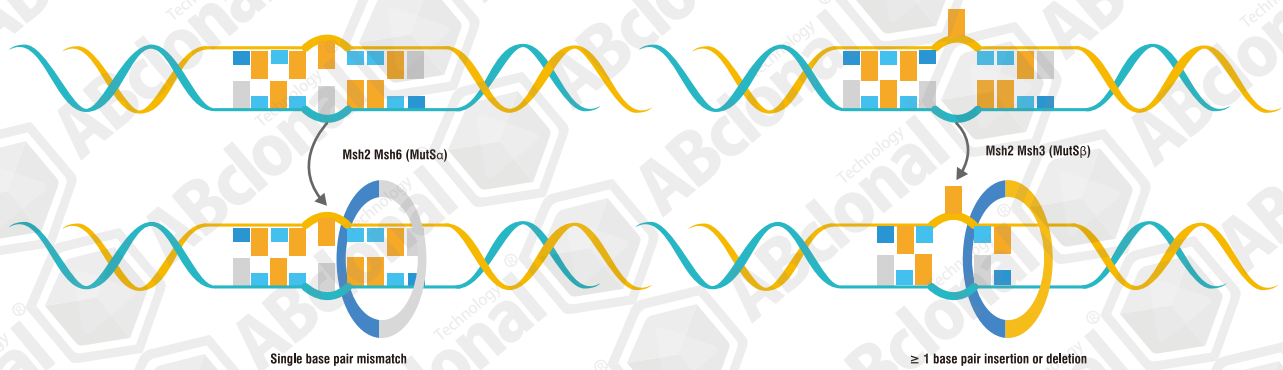
**A2109**



Immunofluorescence analysis of MCF-7 cells using PPP4C antibody (A2109).



# Mismatch Repair



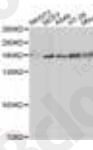
In the event of a mismatch during DNA replication, the cell recognizes the mismatch in the newly synthesized strand through an accurate mismatch repair system and repairs it, and the mismatch in the new DNA strand is almost completely corrected. The repair process is to identify the correct strand, remove the incorrect part, and then synthesize the correctly-paired double-stranded DNA through the reaction of DNA polymerase III and DNA ligase.



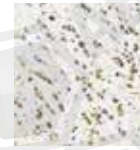
## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A6842	RAD23B	WB	H M R
A0182	RAD50	WB IHC	H M
A3078	RAD50	WB IP	H M R
A6268	RAD51	WB	H M R
A6962	RAD51B	WB	M R
A10893	RAD51C	WB	H M R
A7534	Rad51D	WB IF	H M R
A3077	RAD52	WB	H M R
A1890	RAD9A	WB IHC IF	H M R
A5626	RAG2	WB IF	H M R
A6844	RBX1	WB IHC IF	H
A14500	RBX1	WB	M R
A6845	RDM1	WB	M
A6846	RECQL4	WB	H M
A1625	RFC1	WB IF	H
A6847	RFC2	WB	H M
A4075	RFC3	WB	H M R
A5485	RFC4	WB IHC IF IP	H R
A8056	RFC5	WB IHC	H M
A8523	RMI2	WB	H
A8259	RNF219	WB	M R
A7302	RNF8	WB IF	H M R
A0874	RPA1	WB	H
A2189	RPA2	WB IHC IF IP	H M
A0568	RPA2	WB IHC	H
A6721	RPA3	WB IF	M R
A9284	RPL26	WB	H
A15833	RPS27L	WB	H M R
A13543	RPS3	WB IF	H M
A2533	RPS3	WB IHC	H M R
A11161	RPS3	WB IHC IF	H M R
A0446	RPS6KB1	WB IHC	H
AP0246	Phospho-RPS6KB1-S411	WB IHC IF	H M R
AP0253	Phospho-RPS6KB1-S424	WB IHC IF	H M R
AP0449	Phospho-RPS6KB1-T421	WB IHC IF	H M R
A15719	RPS6KB1	IF	H
A2190	RPS6KB1	WB	H M
A0599	RRM1	WB	H

### A0182

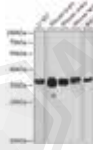


Western blot analysis of extracts of various cell lines, using RAD50 antibody (A0182) at 1:500 dilution.



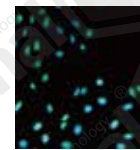
Immunohistochemistry of paraffin-embedded human breast cancer using RAD50 antibody (A0182) at dilution of 1:100 (40x lens).

### A6268



Western blot analysis of extracts of various cell lines, using RAD51 antibody (A6268) at 1:1000 dilution.

### A1625



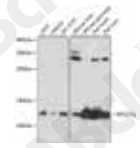
Immunofluorescence analysis of MCF-7 cells using RFC1 antibody (A1625).

### A6845



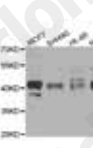
Western blot analysis of extracts of various cell lines, using RDM1 antibody (A6845) at 1:1000 dilution.

### A15833



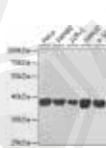
Western blot analysis of extracts of various cell lines, using RPS27L antibody (A15833) at 1:1000 dilution.

### A4075



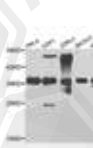
Western blot analysis of extracts of various cell lines, using RFC3 antibody (A4075) at 1:1000 dilution.

### A5485



Western blot analysis of extracts of various cell lines, using RFC4 antibody (A5485) at 1:1000 dilution.

### A8056



Western blot analysis of extracts of various cell lines, using RFC5 antibody (A8056) at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded human lung cancer using RFC5 antibody (A8056) at dilution of 1:100 (40x lens).

### A0874



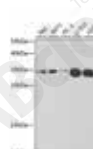
Western blot analysis of extracts of various cell lines, using RPA1 antibody (A0874) at 1:3000 dilution.

### A1890



Immunohistochemistry of paraffin-embedded human liver injury using RAD9A antibody (A1890) at dilution of 1:200 (40x lens).

### A2189



Western blot analysis of extracts of various cell lines, using RPA2 antibody (A2189) at 1:1000 dilution.



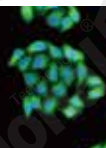
Immunoprecipitation analysis of 200ug extracts of Jurkat cells using 1ug RPA2 antibody (A2189).

### A2533



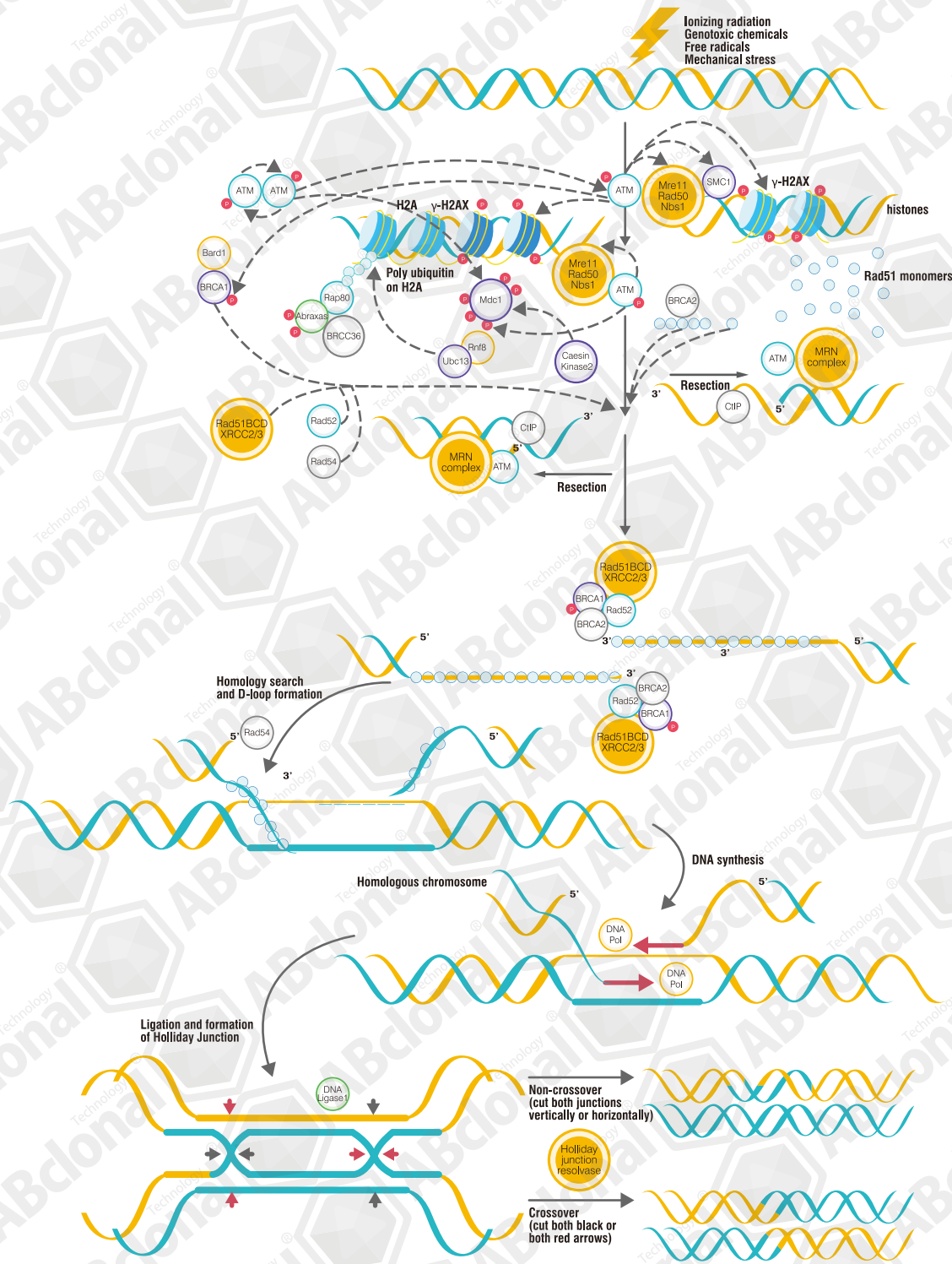
Western blot analysis of extracts of various cell lines, using RPS3 antibody (A2533) at 1:1000 dilution.

### A7534



Immunofluorescence analysis of A549 cells using Rad51D antibody (A7534).

# Homologous Recombination



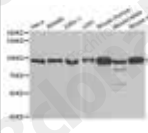
There are many types of DNA damage, with DNA strand breaks being the most serious. Homologous recombination repair (HRR) is the main way to repair DNA DSB damages, and it is very important in the maintenance of the genome integrity of mammalian cells. HRR is regulated by RAD51, BRCA1, BRCA2 and other factors. The inactivation or step interruption of these factors will lead to chromosome rupture and cell death, and improper repairs may lead to chromosomal deletion, rearrangement, translocation and inversion – causing tumors and other diseases.




## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
A13656	RRM1	WB IF	H M
A13348	RRM1	WB IF IP	H M
A1152	RRM1	WB IHC	H M
A5255	RRM2	WB IHC IF IP	H M R
A5516	RRM2B	WB	H
A5723	RUVBL1	WB IHC IF	H M
A12564	RUVBL2	WB IHC IF	H M R
A1905	RUVBL2	WB IHC IF	H M R
A8500	SMEK1	WB IHC	H M R
A10166	SMUG1	WB	H M R
A2153	SPDYA	WB	H M R
A9892	STRA13	WB	H
A1423	TBP	WB IHC IF FC	H
A2192	TBP	WB	H M R
A10185	TBP	WB IHC	H M
A6851	TCEB1	WB IHC	H
A12515	TCEB1	WB	H M R
A1989	TCEB1	WB IHC	H M R
A13363	TCEB2	WB IHC IP	H
A5362	TCEB2	WB IP	H M
A8492	TCEB3B	WB	M R
A1262	TDG	WB	M R
A5756	TDG	WB	H M
A4849	TDP1	WB	H R
A8380	TMEM189	WB IHC	H
A5761	TP53	WB IHC IP	H M R
A6506	TP53	WB	H
A3185	TP53	WB IHC IF	H R
A5804	TP53	WB IF	M R
A10610	TP53	WB	H M
A11212	TP53	WB IF	H
A11799	TP53	WB	H
A11232	TP53	WB IHC IF	H M
A0263	TP53	WB IF	H
AP0085	Phospho-TP53-S9	WB IF	H
AP0158	Phospho-TP53-S15	WB	H
AP0462	Phospho-TP53-S315	WB	H
AP0463	Phospho-TP53-S37	WB	H

**A13348**

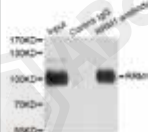


Western blot analysis of extracts of various cell lines, using RRM1 antibody (A13348) at 1:1000 dilution.



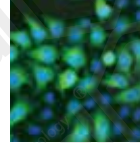
Immunofluorescence analysis of U2OS cells using RRM1 antibody (A13348) at dilution of 1:100. Blue: DAPI for nuclear staining.

**A13348**



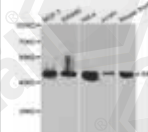
Immunoprecipitation analysis of 200ug extracts of HeLa cells using 1ug RRM1 antibody (A13348).

**A5255**




Immunofluorescence analysis of A549 cells using RRM2 antibody (A5255).

**A5255**



Western blot analysis of extracts of various cell lines, using RRM2 antibody (A5255) at 1:1000 dilution.



Immunoprecipitation analysis of 200ug extracts of HeLa cells using 1ug RRM2 antibody (A5255).

**A3185**




Western blot analysis of extracts of various cell lines, using TP53 antibody (A3185) at 1:300 dilution.




Immunohistochemistry of paraffin-embedded human gastric cancer using TP53 Antibody (A3185) at dilution of 1:100 (40x lens).

**A5723**

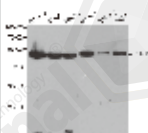


Immunohistochemistry of paraffin-embedded human stomach using RUVBL1 Antibody (A5723) at dilution of 1:100 (40x lens).

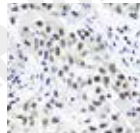


Immunofluorescence analysis of A549 cells using RUVBL1 antibody (A5723).

**A1905**

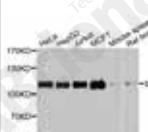


Western blot analysis of extracts of various cell lines, using RUVBL2 antibody (A1905) at 1:1000 dilution.




Immunohistochemistry of paraffin-embedded human lung cancer using RUVBL2 antibody (A1905) at dilution of 1:100 (40x lens).

**A8500**

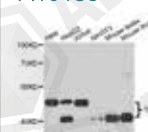


Western blot analysis of extracts of various cell lines, using SMEK1 antibody (A8500) at 1:1000 dilution.




Immunohistochemistry of paraffin-embedded human lung cancer using SMEK1 antibody (A8500) at dilution of 1:100 (40x lens).

**A10185**



Western blot analysis of extracts of various cell lines, using TBP antibody (A10185) at 1:1000 dilution.

**A5362**



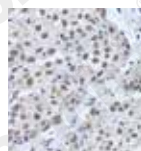
Immunoprecipitation analysis of 150ug extracts of MCF7 cells using 3ug TCEB2 antibody (A5362).



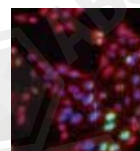
## DNA Repair Antibodies List

Catalog	Name	Applications	Cross-Reactivity
AP0161	Phospho-TP53-S46	WB	H
AP0157	Phospho-TP53-S6	WB	H
AP0464	Phospho-TP53-T18	WB	H
AP0762	Phospho-TP53-S33	WB IP	H
AP0641	Phospho-TP53-S392	WB IHC IF IP	H M R
A11012	Acetyl-TP53-K370	WB IF IP	H M R
A0119	TP53BP1	WB IHC IF	H M R
A5757	TP53BP1	WB IHC IF	H M R
AP0465	Phospho-TP73-Y99	WB	H
A2781	TP73	WB	H M R
A6778	TREX1	WB IF	H M
A9785	TSN	WB IHC IF	H M
A12276	TSNAX	WB	H M R
A6315	UBE2B	WB IHC	H M R
A2193	UBE2I	WB IHC	H M R
A13558	UBE2I	WB IF	H
A10543	UBE2N	WB	H M R
A8381	UBE2NL	WB	H M
A6853	UBE2T	WB	H M R
A6316	UBE2V1	WB IF	H M R
A6998	UBE2V2	WB IHC	H M R
A14512	UIMC1	WB	H M
A1473	USP1	WB	H
A6785	USP1	WB	H M R
A4208	USP11	WB FC	H
A8462	UVRAG	WB IHC	H M R
A6854	WDR48	WB IHC	H M R
A6855	WRN	WB	H
A1626	XPA	WB IF	H M
A8354	XPC	WB IHC	H
A0443	XRCC1	WB	H
A13639	XRCC2	WB IF	H M
A2134	XRCC3	WB IHC IF	H M R
A7539	XRCC4	WB	H
A1677	XRCC4	WB IHC IF	H M R
A0884	XRCC5	WB IHC IF IP	H
A5862	XRCC5	WB IHC IF IP	H
A7330	XRCC6	WB IHC IF IP	H M M k

**A5757**

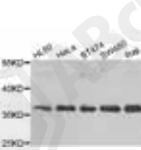


Immunohistochemistry of paraffin-embedded human lung cancer using TP53BP1 antibody (A5757) at dilution of 1:100 (40x lens).

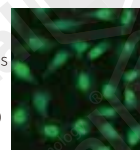


Immunofluorescence analysis of GFP-RNF168 transgenic U2OS cells using TP53BP1 antibody (A5757).

**A6778**



Western blot analysis of extracts of various cell lines, using TREX1 antibody (A6778) at 1:1000 dilution.



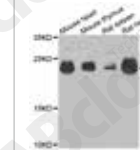
Immunofluorescence analysis of HeLa cells using TREX1 antibody (A6778).

**A2193**



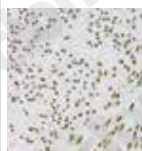
Western blot analysis of extracts of various cell lines, using UBE2I antibody (A2193) at 1:1000 dilution.

**A6853**



Western blot analysis of extracts of various cell lines, using UBE2T antibody (A6853) at 1:1000 dilution.

**A0883**



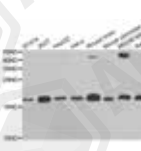
Immunohistochemistry of paraffin-embedded human leiomyoma of uterus using XRCC6 Antibody (A0883) at dilution of 1:100 (40x lens).

**A0883**

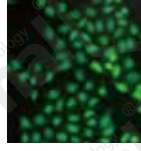


Immunofluorescence analysis of HeLa cells using XRCC6 antibody (A0883) at dilution of 1:100 (40x lens).

**A6316**



Western blot analysis of extracts of various cell lines, using UBE2V1 antibody (A6316) at 1:1000 dilution.

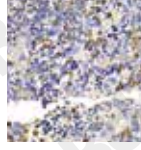


Immunofluorescence analysis of U2OS cells using UBE2V1 antibody (A6316).

**A6998**

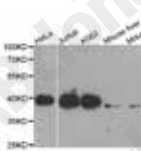


Western blot analysis of extracts of various cell lines, using UBE2V2 antibody (A6998) at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded rat spleen using UBE2V2 antibody (A6998) at dilution of 1:100 (40x lens).

**A1626**



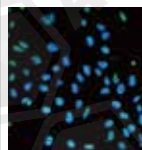
Western blot analysis of extracts of various cell lines, using XPA antibody (A1626) at 1:1000 dilution.

**A0443**

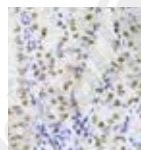


Western blot analysis of extracts of various cell lines, using XRCC1 antibody (A0443) at 1:1000 dilution.

**A5862**



Immunofluorescence analysis of A549 cells using XRCC5 antibody (A5862).



Immunohistochemistry of paraffin-embedded human stomach using XRCC5 Antibody (A5862) at dilution of 1:100 (40x lens).



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