Breast Cancer Biomarkers

Cloud-Clone Corp.

Assay Reagents / Testing Services / Diagnostic Reagents

CE

ISO
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Breast Cancer Biomarkers

Breast cancer is one of the most common cancers in women. The incidence of breast cancer ranks in the forefront of all kinds of cancers. The peak incidence of breast cancer is between 45 and 60 years old. In recent years, the incidence of breast cancer is younger. With the development of the breast cancer study, more and more prognostic markers have been found. Some of them have been applied in clinical practice as the basis of molecular typing of breast cancer, for example, estrogen receptor(ER), progesterone receptor (PR) and proto-oncogene Her2 are negative markers of triple-negative breast cancer, the prognosis is poor. There are more than a dozen breast cancer molecular typing based on biomarkers, which can detect the occurrence or recurrence of breast cancer.

Cloud-Clone could provide multiple proteins, antibodies and ELISA kits of detection markers for breast cancer, which can be used in testing human, mouse, rat, porcine, caprine, etc.

1. Cloud-Clone on sale items that related to Breast Cancer Biomarkers.

Cloud-Clone related index products of Breast Cancer Biomarkers						
AG-2	BRCA2	Ck14	Ki-67	PARP	PAI-1	WISP3
AIM2	CA15-3/MUC-1	EGFR	MKP-3	PP4	SUSD2	YAP1
ATAD2	CAV1	Her2	NES	PP5	TP53	
B3GalT5	CD117	HIN-1	NGFR	NR3C3	TMEM25	
BRCA1	CEA	ITGBL1	NM23-H1	RHAMM	uPA	

2. Excellent citations that related to Cloud-Clone Breast Cancer Biomarkers (Excerpt)

| Item	Species	Journals	IF	Pubmed ID	Institute
uPA	Human	Journal of Allergy and Clinical Immunology	13.258	Doi:10.1016/j.jaci.2015.12.901	Medical University of South Carolina
PAI1	Mouse	Haematologica	9.09	29903766	Department of Hematology, Affiliated Hospital of Xuzhou Medical University
DUSP6	Human	Cell Death & Differentiation	8	Doi:10.1038/s41418-018-0069-8	Department of Microbiology and Cell Biology, Science Institute of Indian
CEA	Mouse	Analytical chemistry	6.042	27506255	State Key Laboratory of Analytical Chemistry of Life Sciences, School of Chemistry and Chemical Engineering, Nanjing University
EGFR	Human	Molecular Cancer Therapeutics	5.365	26586721	MOGAM Institute of Biotechnology, Gyeonggi-do, Korea
CAV1	Mouse	Oxidative Medicine and Cellular Longevity	4.936	29849903	Department of Sports Bioenergy and Physiology, Gdansk Medical University
TP53	Mouse	Journal of Nutritional Biochemistry	4.414	26344778	Department of Basic Pharmaceutical Sciences, School of Pharmacy, University of Louisiana
MUC1	Human	Cellular Microbiology	4.41	29156489	Institute of Molecular Infectious Biology, University of Wiltsburg, Germany (IMIB)
Her2	Mouse	Neuroscience Letters	2.159	21539896	Department of Histology and Embryology, Mudanjiang Medical College
Ki67	Human	Chemistry & Biodiversity	1.617	29874411	Department of Cancer Biology, Egyptian National Cancer Institute
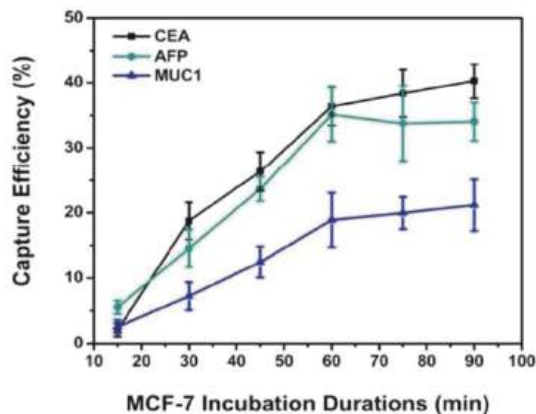
Figure . Capture efficiencies of MCF-7 incubation durations (15 min, 30 min, 45 min, 60 min, 75 min and 90 min, respectively) with Anti-CEA antibodies on electrode surface; (Hai-Wei Shi, 2016)
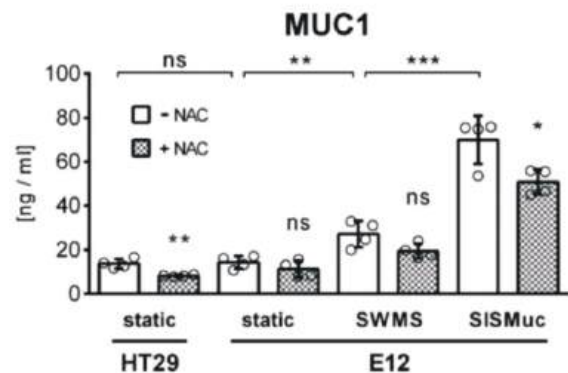(Product No.: PAA150Mu01   Sample type: cell line)

Figure . The concentrations of mucins MUC1 was determined before and after treatment with 60 mM N-acetyl Lcysteine (NAC) by ELISA. (Christian Reuter, 2017)
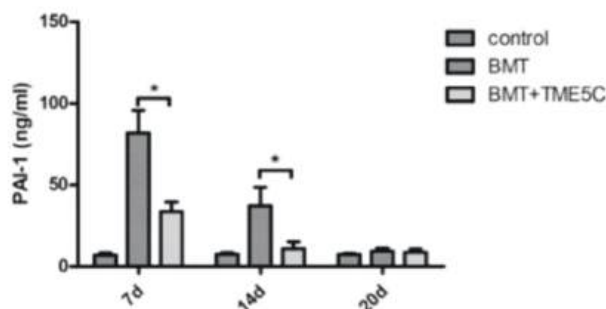(Product No.: SEA413Hu   Sample type: cell suspernatant)

Figure . Plasma was collected for ELISA to measure the concentrations of PAI-1. (Xiangmin Wang, 2018)
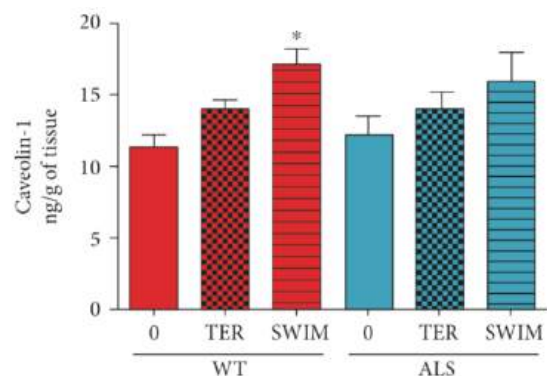(Product No.: SEA532Mu   Sample type: plasma)

Figure . Cholesterol content and the Caveolin-1 protein level in skeletal muscle crude mitochondria and homogenates in the ALS and WT mice. (Damian Jozef Flis, 2018)
(Product No.: SEA214Mu   Sample type: tissue homogenate)

Samples[a]	Standard addition	EGFR (ng mL^{-1})	
		MI[b]	ELISA
SS 1	0	1.32 + 0.02[c]	1.33 + 0.03
SS 2	5	7.95 + 0.07	7.33 + 0.05
SS 3	10	15.14 + 0.05	15.88 + 0.06
SS 4	25	31.19 + 0.09	30.23 + 0.08
SS 5	45	48.13 + 0.11	48.97 + 0.14

[a] Human serum samples.
[b] Microfluidic immunosensor.
[c] Mean of three determinations + S.D.

Figure . Comparison of EGFR concentration in human serum samples by microfluidic immunosensor (MI) and ELISA.. (Matías Regiart, 2017)
(Product No.: SEA757Hu   Sample type: serum)

3. Citation statistics that related to Cloud-Clone Breast Cancer Biomarkers (Excerpt)

Carcinoembryonic Antigen (CEA)

Product	Species	Citation
Protein / Antibody / ELISA kit	Human, Rat, Mouse	26

Excerpt：

1. Shi H W, Zhao W, Liu Z, et al. Temporal sensing platform based on bipolar electrode for the ultrasensitive detection of cancer cells[J]. Analytical chemistry, 2016, 88(17): 8795-8801.(IF=6.042)

2. Liu L X, Fan G C, Zhang J R, et al. Ultrasensitive cathode photoelectrochemical immunoassay based on TiO2 photoanode-enhanced 3D Cu2O nanowire array photocathode and signal amplification by biocatalytic precipitation[J]. Analytica chimica acta, 2018, 1027: 33-40.(IF=5.123)

3. Mansour M A, Bekheet S A, Al-Rejaie S S, et al. Ginger ingredients inhibit the development of diethylnitrosoamine induced premalignant phenotype in rat chemical hepatocarcinogenesis model[J]. Biofactors, 2010, 36(6): 483-490.

Plasminogen Activator Inhibitor 1 (PAI1)

Product	Species	Citation
Protein / Antibody / ELISA kit	Human, Rat, Mouse, Rabbit	17

Excerpt：

1. Wang X, Pan B, Honda G, et al. Cytoprotective and pro-angiogenic functions of thrombomodulin are preserved in the C loop of the fifth epidermal growth factor-like domain[J]. Haematologica, 2018: haematol. 2017.184481.（IF=9.09）

2. Kondo K, Ishida T, Yasuda T, et al. Trans-fatty acid promotes thrombus formation in mice by aggravating antithrombogenic endothelial functions via Toll-like receptors[J]. Molecular nutrition & food research, 2015, 59(4): 729-740.（IF=5.151）

3. Kim E J, Hong J E, Eom S J, et al. Oral administration of benzyl-isothiocyanate inhibits solid tumor growth and lung metastasis of 4T1 murine mammary carcinoma cells in BALB/c mice[J]. Breast cancer research and treatment, 2011, 130(1): 61-71.

Plasminogen Activator, Urokinase (uPA)

Product	Species	Citation
Protein / Antibody / ELISA kit	Human, Rat, Mouse, Pig, Bovine	12

Excerpt：

1. Joseph K, Tholanikunnel B G, Kaplan A P. Cytokine and estrogen stimulation of endothelial cells augments activation of the prekallikrein-high molecular weight kininogen complex: implications for hereditary angioedema[J]. Journal of Allergy and Clinical Immunology, 2017, 140(1): 170-176.(IF=13.258)

2. Kim E J, Hong J E, Eom S J, et al. Oral administration of benzyl-isothiocyanate inhibits solid tumor growth and lung metastasis of 4T1 murine mammary carcinoma cells in BALB/c mice[J]. Breast cancer research and treatment, 2011, 130(1): 61-71.

3. Razali N, Agarwal R, Agarwal P, et al. IOP lowering effect of topical trans-resveratrol involves adenosine receptors and TGF-β2 signaling pathways[J]. European journal of pharmacology, 2018, 838: 1-10.

Caveolin 1 (CAV1)

Product	Species	Citation
Protein / Antibody / ELISA kit	Human, Rat, Mouse, Pig, Canine, Gallus, Bovine, Horse	12

Excerpt：

1. Flis D J, Dzik K, Kaczor J J, et al. Swim Training Modulates Skeletal Muscle Energy Metabolism, Oxidative Stress, and Mitochondrial Cholesterol Content in Amyotrophic Lateral Sclerosis Mice[J]. Oxidative medicine and cellular longevity, 2018, 2018.(IF=4.936)

2. Zhang J, Zhu W, Xiao L, et al. Lower serum caveolin-1 is associated with cerebral microbleeds in patients with acute ischemic stroke[J]. Oxidative medicine and cellular longevity, 2016, 2016.(IF=4.936)

3. Bach F C, Zhang Y, Miranda-Bedate A, et al. Increased caveolin-1 in intervertebral disc degeneration facilitates repair[J]. Arthritis research & therapy, 2016, 18(1): 59.

Mucin 1 (MUC1)

Product	Species	Citation
Protein / Antibody / ELISA kit	Human, Rat, Mouse, Pig, Canine, Gallus, Bovine, Horse	9

Excerpt：

1. Reuter C, Alzheimer M, Walles H, et al. An adherent mucus layer attenuates the genotoxic effect of colibactin[J]. Cellular microbiology, 2018, 20(2): e12812.(IF=4.41)

2. Cao H, Fang X, Li H, et al. Ultrasensitive detection of mucin 1 biomarker by immuno-loop-mediated isothermal amplification[J]. Talanta, 2017, 164: 588-592.

3. Maker A V, Katabi N, Gonen M, et al. Pancreatic cyst fluid and serum mucin levels predict dysplasia in intraductal papillary mucinous neoplasms of the pancreas[J]. Annals of surgical oncology, 2011, 18(1): 199-206.

Epidermal Growth Factor Receptor (EGFR)

Product	Species	Citation
Protein / Antibody / ELISA kit	Human, Rat, Mouse	7

Excerpt：

1. Lim Y, Yoo J, Kim M S, et al. GC1118, an anti-EGFR antibody with a distinct binding epitope and superior inhibitory activity against high-affinity EGFR ligands[J]. Molecular cancer therapeutics, 2016, 15(2): 251-263.(IF=5.365)

2. Regiart M, Fernández-Baldo M A, Villarroel-Rocha J, et al. Microfluidic immunosensor based on mesoporous silica platform and CMK-3/poly-acrylamide-co-methacrylate of dihydrolipoic acid modified gold electrode for cancer biomarker detection[J]. Analytica chimica acta, 2017, 963: 83-92.