



To support vaccine research and development, The Native Antigen Company offers Haemagglutinin (HA) and Neuraminidase (NA) antigens for the WHO-recommended egg-based and recombinant vaccine strains for **Seasonal Influenza**, as well as the Influenza A virus subtype **H5N1 'bird flu'**. We are a **World leading supplier** of reagents that enables research into vaccines and diagnostics for emerging and endemic infectious diseases.

- Expressed from our proprietary **VirtuE™ HEK293 expression system**, these antigens exhibit native-like glycosylation and folding. Our latest Haemagglutinin antigens feature C-terminal T4 foldon domains, stabilising them in their **trimeric conformation** to present more native-like conformational epitopes.
- In addition to providing our catalogue products, The Native Antigen offer the following customised solutions and more:
 - Rapid development of novel strain Influenza Antigens (HA Trimer / NA Tetramer / N) in as little as 5-6 weeks
 - Up to 20 sequences can be put into development in parallel.
 - Bespoke strains and customer specific modifications produced as a service.
 - Historical monomeric HA or NA catalogue antigens can now be re-built as trimers or tetramers.
 - Trypsin Cleavage to offer mature HA1 and HA2

Contact our sales team at nac.contact@lgcgroup.com to see how we can support with your custom needs.

- Quality of our products has been **recognised by the leaders in the Influenza field.**

"(...) We have used a tetrameric NA recombinant protein synthesized by The Native Antigen Company to successfully detect NA inhibiting antibodies in sera of animals immunised with a new promising candidate vaccine."

Dr Barbara Dema Jimenez,
Immunologist from Nuffield Department
of Medicine (University of Oxford)

"I have sourced my custom and off-the-shelf influenza HA antigens with The Native Antigen Company since December 2019 for a variety of human antibody research projects. These projects include the comparative evaluation of seasonal vaccines in collaboration with the CDC and Mayo Clinic, and the pursuit of universal vaccine development in a vibrant collaboration with Duke University as part of their NIH Collaborative Vaccine Innovation Centers (CIVICs) program. The professionalism, attentiveness and expediency of The Native Antigen Company has been unrivalled in my experience. I can't recommend them highly enough!"

Gregory C. Ippolito, Ph.D. The University of Texas at Austin,
Department of Molecular Biosciences, Austin, TX U.S.A

We offer an extensive range of recombinant HA/NA antigens, native purified viral lysates and monoclonal antibodies for established strains. Our products are also available in bulk quantities. Please contact our sales team for further information.

SEASONAL INFLUENZA STRAINS FOR NORTHERN HEMISPHERE WINTER 2023-2024					
STRAIN DESCRIPTION	TYPE	PROTEIN TYPE	ISOLATE ID	GISAID PROTEIN	PRODUCT CODE
A/Darwin/9/2021 (H3N2)-like virus	Egg	Hemagglutinin	EPI_ISL_2233240	EPI1859996	REC32002
A/Victoria/4897/2022 (H1N1)pdm09-like virus	Egg	Hemagglutinin	EPI_ISL_16714268	EPI2319193	REC32052
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	Egg	Hemagglutinin	EPI_ISL_2378894	EPI1868375	REC32004
B/Phuket/3073/2013 (B/Yamagata lineage)-like virus	Egg	Hemagglutinin	EPI_ISL_168822	EPI551297	REC32022
A/Darwin/6/2021 (H3N2)-like virus	Recombinant	Hemagglutinin	EPI_ISL_2233238	EPI1859992	REC32020
A/Wisconsin/67/2022 (H1N1)pdm09-like virus	Recombinant	Hemagglutinin	EPI_ISL_15928563	EPI2224978	REC32054
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	Recombinant	Hemagglutinin	EPI_ISL_2378894	EPI1868375	REC32004
B/Phuket/3073/2013 (B/Yamagata lineage)-like virus	Recombinant	Hemagglutinin	EPI_ISL_161843	EPI529345	REC31954
A/Darwin/9/2021 (H3N2)-like virus	Egg	Neuraminidase	EPI_ISL_2233240	EPI1859995	REC32003
A/Victoria/4897/2022 (H1N1)pdm09-like virus	Egg	Neuraminidase	EPI_ISL_16714268	EPI2319192	REC32051
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	Egg	Neuraminidase	EPI_ISL_2378894	EPI1868374	REC32005
B/Phuket/3073/2013 (B/Yamagata lineage)-like virus	Egg	Neuraminidase	EPI_ISL_168822	EPI551296	REC31955
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	Recombinant	Neuraminidase	EPI_ISL_2378894	EPI1868374	REC32005
A/Darwin/6/2021 (H3N2)-like virus	Recombinant	Neuraminidase	EPI_ISL_2233238	EPI1859991	REC32021
A/Wisconsin/67/2022 (H1N1)pdm09-like virus	Recombinant	Neuraminidase	EPI_ISL_15928563	EPI2224977	REC32053
B/Phuket/3073/2013 (B/Yamagata lineage)-like virus	Recombinant	Neuraminidase	EPI_ISL_161843	EPI529344	REC31955
H5N1 STRAINS					
STRAIN DESCRIPTION		PROTEIN TYPE	ISOLATE ID	GISAID PROTEIN	PRODUCT CODE
Influenza A/chicken/Scotland/054477/2021		Nucleoprotein	EPI_ISL_9012696	EPI1963385	REC32055
Influenza A/Greylag_goose/England/054503/2021		Nucleoprotein	EPI_ISL_9029965	EPI1963898	REC32056
Influenza A/Greylag_goose/Scotland/024915/2022		Nucleoprotein	EPI_ISL_13486869	EPI2076366	REC32057
Influenza A/Duck/Egypt/AR526/2017		Nucleoprotein	EPI_ISL_344529	EPI1420358	REC32058
Influenza A/Cambodia/NPH230032/2023		Nucleoprotein	EPI_ISL_17024123	EPI2419703	REC32059
Influenza A/Greylag_goose/Scotland/024915/2022		Hemagglutinin	EPI_ISL_13486869	EPI2076373	REC32060
Influenza A/Greylag_goose/Scotland/024915/2022		Neuraminidase	EPI_ISL_13486869	EPI2076372	REC32061

To view our library of previous years of WHO recommended strains of influenza HA and NA antigens please visit <https://thenativeantigencompany.com/influenza-vaccine-antigens/>