

Datasheet for ABIN6657574

anti-Hemagglutinin antibody



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Overview

Quantity:	100 µL
Target:	Hemagglutinin (HA)
Reactivity:	Influenza A Virus H5N1
Virus Strain:	A/Vietnam/1203/04
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Hemagglutinin antibody is un-conjugated
Application:	ELISA, Immunoprecipitation (IP), Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	H5N1 Antibody VN04-2
Immunogen:	This monoclonal antibody was produced by intraperitoneal immunization of BALB/c mice with concentrated purified virus preparation containing hemagglutinin (HA) protein of influenza A virus [strain A/Vietnam/1203/04 (H5N1)] using the modification of the method described by Kohler and Milstein. Each mouse received two immunizations of 15 mug HA with incomplete Freund's adjuvant, administered 3 week apart.
Clone:	15A3
Isotype:	IgG2a kappa
Cross-Reactivity (Details):	VN04-2 monoclonal antibody did not cross-react with influenza viruses of other HA subtypes.
Purification:	This product was clarified from mouse ascitic fluid and is specific for H5 hemagglutinin (HA) protein of influenza A virus [strain A/Vietnam/1203/04 (H5N1)].

Product Details

Sterility: Sterile filtered

Target Details

Target: Hemagglutinin (HA)

Alternative Name: Hemagglutinin ([HA Products](#))

Target Type: Influenza Protein

Background: Synonyms: mouse anti-H5N1 antibody, mouse anti-Hemagglutinin A antibody, H5HA antibody, Hemagglutinin 5 antibody, H5N1 antibody

Background: Antibody raised against the hemagglutinin (HA) surface glycoprotein of the A/Vietnam/1203/04 (H5N1) influenza virus. Generally referred to as "bird flu", the H5N1 influenza A virus has been documented in poultry and humans across ten Eurasian countries, from Japan in the north to Indonesia in the south. Without immunity, humans would have no protection against H5N1 influenza viruses, which could potentially cause a catastrophic pandemic influenza. This antibody, directed against the HA surface glycoprotein of the A/Vietnam/1203/04 (H5N1) influenza virus, is intended to further our understanding of the mechanisms underlying antigenic variation and evolution of novel variants. The major functions of HA include receptor-binding and fusion activities, but there may also be a structural role for HA in viral particle formation. Following attachment of HA to surface receptors on susceptible cells, the influenza virus enters the cell via endocytosis and membrane fusion.

Gene Name: HA

Gene ID: 159144921

UniProt: [A8UDQ2](#)

Application Details

Application Notes: Neutralization_Dilution: User Optimized

Immunoprecipitation_Dilution: User Optimized

ELISA_Dilution: 1:5,000

Immunohistochemistry_Dilution: User Optimized

Western_Blot_Dilution: User Optimized

Comment: This monoclonal antibody can be used for hemagglutination inhibition (HI) assays to provide antigenic characterization of the influenza A viruses of the H5 HA subtype. This monoclonal antibody is suitable for virus neutralization assays (in cell culture and in embryonated chicken eggs), ELISA, immunoprecipitation, immunohistochemistry and western blotting.

Application Details

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Buffer: None
Stabilizer: None
Preservative: 0.01 % (w/v) Sodium Azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C,-20 °C

Storage Comment: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: 12 months

Publications

Product cited in: Reed, Yen, DuBois, Bridges, Salomon, Webster, Russell: "Amino acid residues in the fusion peptide pocket regulate the pH of activation of the H5N1 influenza virus hemagglutinin protein." in: **Journal of virology**, Vol. 83, Issue 8, pp. 3568-80, (2009) ([PubMed](#)).

Govorkova, Webby, Humberd, Seiler, Webster: "Immunization with reverse-genetics-produced H5N1 influenza vaccine protects ferrets against homologous and heterologous challenge." in: **The Journal of infectious diseases**, Vol. 194, Issue 2, pp. 159-67, (2006) ([PubMed](#)).

Hanson, Boon, Lim, Webb, Ooi, Webby: "Passive immunoprophylaxis and therapy with humanized monoclonal antibody specific for influenza A H5 hemagglutinin in mice." in: **Respiratory research**, Vol. 7, pp. 126, (2006) ([PubMed](#)).

Hoffmann, Lipatov, Webby, Govorkova, Webster: "Role of specific hemagglutinin amino acids in the immunogenicity and protection of H5N1 influenza virus vaccines." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 102, Issue 36, pp. 12915-

20, (2005) ([PubMed](#)).

Images

Cross reactivity of anti-A/Vietnam/1203/2004 (H5N1) HA monoclonal antibodies with H5N1 influenza viruses in HI assay.

HA Clade	H5N1 Influenza Virus	HI titers with anti-HA monoclonal antibodies:					
		VN04-2	VN04-8	VN04-9	VN04-10	VN04-13	VN04-16
HS Ref.	A/Tenn/South Africa/61	100	<	<	<	<	<
North American	A/Chicken/Pennsylvania/1370/83	3200	<	25600	200	3200	<
	A/Malard/Pennsylvania/10218/84	800	<	200	6400	25600	400
	A/Chicken/Hidalgo/28159-233/94	<	<	200	100	1600	<
	A/Malard/Arkansas/1/2001	1600	<	200	400	3200	100
Clade 0	A/Hong Kong/159/97	6400	<	25600	6400	25600	400
	A/Hong Kong/481/97	6400	<	1600	1600	12800	100
	A/Duck/Singapore/3/97	200	<	200	800	6400	200
	A/Goose/Hong Kong/437-4/99	6400	<	6400	1600	6400	200
Clade 1	A/Vietnam/1194/2004	3200	1600	12800	3200	6400	1600
	A/Vietnam/1203/2004	6400	1600	12800	3200	6400	1600
	A/Vietnam/HK/3040/9/2005	6400	3200	3200	3200	6400	1600
	A/Hong Kong/213/2003	6400	3200	400	3200	800	3200
Clade 2.1.2	A/Indonesia/9/2005	3200	<	800	25600	200	6400
	A/Indonesia/9/2005	<	<	400	12800	200	3200
Clade 2.1.3	A/Chicken/Indonesia/PA03/2003	800	3200	200	3200	1600	1600
	A/Duck/HUN/WSN/1504/2004	1600	<	3200	1600	<	400
	A/Duck/GX/LA/1304/2004	<	1600	<	3200	1600	1600
	A/Chicken/Jogjakarta/BBVET/6/2004	100	<	100	3200	3200	400
Clade 2.2	A/Chicken/Malang/BBVET/1/2004	3200	3200	<	3200	3200	1600
	A/Whooper swan/Mongolia/244/2005	<	1600	<	3200	1600	1600
	A/Turkey/15/2006	100	<	<	3200	<	400
	A/Bar headed goose/Qinghai/1A/2005	100	6400	<	6400	12800	3200
Clade 2.3.4	A/Duck/Kunming/9/2004	1600	<	3200	1600	<	400
	A/Duck/Laos/3295/2006	<	<	400	1600	100	100
	A/Chicken/Malaysia/935/2006	100	<	400	800	100	100
	A/Common mallee/Hong Kong/645/2006	<	<	200	400	<	100
Clade 2.4	A/Duck/Guangxi/13/2004	<	1600	<	3200	1600	1600

Hemagglutination-inhibition (HI) testing was performed with 0.5% chicken red blood cells by standard method. < - less than 1:100.

Image 1. anti H5N1 antibody-Virus Neutralization Shown are titers of anti H5N1 antibodies against a variety of H5N1 influenza viruses .