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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION

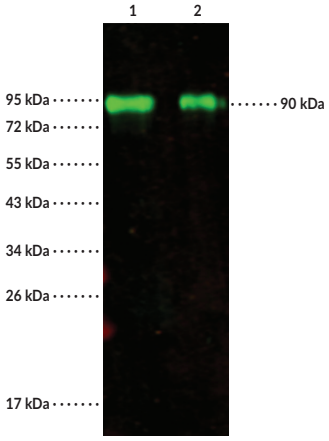
Influenza A H1N1 HA Monoclonal Antibody (Clone 02)

Item No. 38104

Overview and Properties

Contents:	This vial contains 50 or 100 µl of protein A-affinity purified monoclonal antibody.
Synonym:	Influenza A H1N1 Hemagglutinin
Immunogen:	Recombinant influenza A H1N1 (A/California/07/2009) HA
Cross Reactivity:	(+) HA
Species Reactivity:	(+) Influenza A H1N1 (A/California/07/2009)
Molecular Weight:	~90 kDa
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	02
Host:	Mouse
Isotype:	IgG1
Applications:	Western blot (WB) (reducing conditions); the recommended starting dilution is 1:1,000-1:5,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Influenza A H1N1 HA recombinant protein (30 ng)
Lane 2: Influenza A H1N1 HA recombinant protein (10 ng)

WB of Influenza A H1N1 HA Monoclonal Antibody at 1:1,000 dilution.

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PRODUCT INFORMATION

Description

Influenza A H1N1 HA is a type I membrane glycoprotein involved in receptor binding and virus-host cell fusion.[1,2] It is produced as a precursor protein, HA0, which is composed of a stalk and head domain and forms homotrimers on the viral surface.[1,3] The HA0 precursor is cleaved into subunits, HA1 and HA2, which are responsible for host cell surface receptor binding and endosomal membrane fusion, respectively, and this cleavage is required for endosomal fusion.[1] For influenza A and influenza B, which are low pathogenic influenza viruses, cleavage occurs *via* trypsin-like proteases, such as transmembrane serine protease 2 (TMPRSS2), which is essential for influenza A HA, but not influenza B HA, cleavage.[4-6] Cleaved influenza A H1N1 HA binds to terminal α2,6- or α2,3-sialic acids on glycoproteins or glycolipids on the host cell surface *via* the receptor-binding domain in the HA1 subunit, which triggers endocytosis of the virus and trafficking of the vesicle into the endosome.[3,7,8] The low pH environment of the endosome triggers viral rearrangement into a prefusion conformation, and the HA2 subunit facilitates fusion with the endosomal membrane to release viral ribonucleoproteins into the cytosol where they are relocated to the nucleus for viral replication.[3] Cayman's Influenza A H1N1 HA Monoclonal Antibody (Clone 02) can be used for Western blot (WB; reducing conditions). The antibody recognizes HA at approximately 90 kDa from the influenza A H1N1 A/California/07/2009 strain.

References

1. Russell, C.J. Hemagglutinin stability and its impact on influenza A virus infectivity, pathogenicity, and transmissibility in avians, mice, swine, seals, ferrets, and humans. *Viruses* **13(5)**, 746 (2021).
2. Gamblin, S.J. and Skehel, J.J. Influenza hemagglutinin and neuraminidase membrane glycoproteins. *J. Biol. Chem.* **285(37)**, 28403-28409 (2010).
3. Dou, D., Revol, R., Östbye, H., *et al.* Influenza A virus cell entry, replication, virion assembly and movement. *Front. Immunol.* **9**, 1581 (2018).
4. Sakai, K., Ami, Y., Nakajima, N., *et al.* TMPRSS2 independency for haemagglutinin cleavage *in vivo* differentiates influenza B virus from influenza A virus. *Sci. Rep.* **6**, 29430 (2016).
5. Böttcher-Friebertshäuser, E., Lu, Y., Meyer, D., *et al.* Hemagglutinin activating host cell proteases provide promising drug targets for the treatment of influenza A and B virus infections. *Vaccine* **30(51)**, 7374-7380 (2012).
6. Limburg, H., Harbig, A., Bestle, D., *et al.* TMPRSS2 is the major activating protease of influenza A virus in primary human airway cells and influenza B virus in human type II pneumocytes. *J. Virol.* **93(21)**, e00649-19 (2019).
7. Long, J.S., Mistry, B., Haslam, S.M., *et al.* Host and viral determinants of influenza A virus species specificity. *Nat. Rev. Microbiol.* **17(2)**, 67-81 (2019).
8. Wang, Q., Tian, X., Chen, X., *et al.* Structural basis for receptor specificity of influenza B virus hemagglutinin. *Proc. Natl. Acad. Sci. USA* **104(43)**, 16874-16879 (2007).

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