

Siglec-5 (H-7): sc-377005



The Power to Question

BACKGROUND

Two families of mammalian lectin-like adhesion molecules bind glycoconjugate ligands in a sialic acid-dependent manner: the selectins and the sialoadhesins. The sialic acid-binding immunoglobulin superfamily lectins, designated siglecs or sialoadhesins, are immunoglobulin superfamily members recognizing sialylated ligands. Siglec-5 binds equally to α 2,3-linked and α 2,6-linked sialic acid. There exist four isoforms of hSiglec-5 possessing three (hSiglec-5-3L and -3C) or four (hSiglec-5-4L and -4S) extracellular domains linked to long (hSiglec-5-3L and -4L) or short (hSiglec-5-4S) cytoplasmic tails or existing as a soluble isoform (hSiglec-5-3C). Siglec-5 is expressed by monocytes and neutrophils, but is absent from leukemic cell lines representing early stages of myelomonocytic differentiation. Siglec-5 may play a role in the diagnosis and monitoring of acute myeloid leukemia (AML).

REFERENCES

1. Connolly, N.P., et al. 2002. Human Siglec-5: tissue distribution, novel isoforms and domain specificities for sialic acid-dependent ligand interactions. *Br. J. Haematol.* 119: 221-238.
2. Erickson-Miller, C.L., et al. 2003. Characterization of Siglec-5 (CD170) expression and functional activity of anti-Siglec-5 antibodies on human phagocytes. *Exp. Hematol.* 31: 382-388.
3. Virgo, P., et al. 2003. Identification of the CD33-related Siglec receptor, Siglec-5 (CD170), as a useful marker in both normal myelopoiesis and acute myeloid leukaemias. *Br. J. Haematol.* 123: 420-430.
4. Avril, T., et al. 2005. Siglec-5 (CD170) can mediate inhibitory signaling in the absence of immunoreceptor tyrosine-based inhibitory motif phosphorylation. *J. Biol. Chem.* 280: 19843-19851.
5. Rapoport, E.M., et al. 2005. Sialoside-binding macrophage lectins in phagocytosis of apoptotic bodies. *Biochemistry* 70: 330-338.

CHROMOSOMAL LOCATION

Genetic locus: SIGLEC5 (human) mapping to 19q13.41.

SOURCE

Siglec-5 (H-7) is a mouse monoclonal antibody raised against amino acids 457-520 mapping near the C-terminus of Siglec-5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Siglec-5 (H-7) is available conjugated to agarose (sc-377005 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377005 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377005 PE), fluorescein (sc-377005 FITC), Alexa Fluor[®] 488 (sc-377005 AF488), Alexa Fluor[®] 546 (sc-377005 AF546), Alexa Fluor[®] 594 (sc-377005 AF594) or Alexa Fluor[®] 647 (sc-377005 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377005 AF680) or Alexa Fluor[®] 790 (sc-377005 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Siglec-5 (H-7) is recommended for detection of Siglec-5 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Siglec-5 siRNA (h): sc-61549, Siglec-5 shRNA Plasmid (h): sc-61549-SH and Siglec-5 shRNA (h) Lentiviral Particles: sc-61549-V.

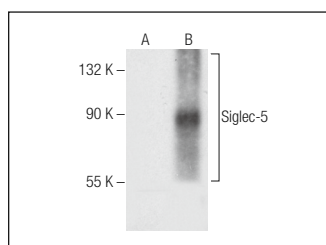
Molecular Weight of Siglec-5: 140/70 kDa.

Positive Controls: Siglec-5 (h): 293T Lysate: sc-114461, HL-60 whole cell lysate: sc-2209 or HEK293T whole cell lysate: sc-45137.

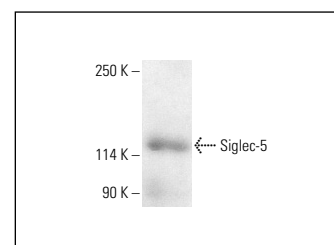
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Siglec-5 (H-7): sc-377005. Western blot analysis of Siglec-5 expression in non-transfected: sc-117752 (A) and human Siglec-5 transfected: sc-114461 (B) 293T whole cell lysates.



Siglec-5 (H-7): sc-377005. Western blot analysis of Siglec-5 expression in HEK293T whole cell lysate. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2020. Tectorigenin inhibits inflammation and pulmonary fibrosis in allergic asthma model of ovalbumin-sensitized guinea pigs. *J. Pharm. Pharmacol.* 72: 956-968.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.