

Siglec-E (K-14): sc-47409

BACKGROUND

Two families of mammalian lectin-like adhesion molecules bind glycoconjugate ligands in a sialic acid-dependent manner: the selectins and 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: Siglece (mouse) mapping to 7 B4.

SOURCE

Siglec-E (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of Siglec-E of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47409 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Siglec-E (K-14) is recommended for detection of Siglec-E of mouse origin by Western Blotting (starting dilution 1:200, 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-E siRNA (m): sc-153462, Siglec-E shRNA Plasmid (m): sc-153462 -SH and Siglec-E shRNA (m) Lentiviral Particles: sc-153462 -V.

Molecular Weight of Siglec-E dimer: 140 kDa.

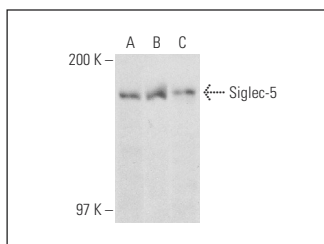
Molecular Weight of Siglec-E monomer: 70 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, WEHI-3 cell lysate: sc-3815 or mouse spleen extract: sc-2391.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Siglec-5 (K-14): sc-47409. Western blot analysis of Siglec-5 expression in M1 (A), mouse PBL (B) and WEHI-3 (C) whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **Siglec-E (F-7): sc-377477**, our highly recommended monoclonal alternative to Siglec-E (K-14).