SANTA CRUZ BIOTECHNOLOGY, INC.

Siglec-6 (S-18): sc-51428

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Two families of mammalian lectin-like adhesion molecules, the selectins and the sialoadhesins, bind glycoconjugate ligands in a sialic acid-dependent manner. The sialic acid-binding immunoglobulin superfamily lectins, designated Siglecs or sialoadhesins, recognize sialylated ligands and play a key role in mediating sialic-acid dependent binding to cells. Siglec-6, also called obesity-binding protein 1, is an adhesion molecule that is highly expressed in placental trophoblasts, as well as in peripheral blood leukocytes. Siglec-6 can bind both N-acetylneuraminic acid (Neu5Ac) and N-glycolylneuraminic acid (Neu5Gc), the two common sialic acids found in mammalian cells. Together with the other members of the Siglec family, Siglec-6 promotes cell-cell interactions and plays a roll in the innate and adaptive immune systems through glycan recognition.

REFERENCES

1. Patel, N., et al. 1999. OB-BP1/Siglec-6. A leptin- and sialic-acid-binding protein of the immunoglobulin superfamily. J. Biol. Chem. 274: 22729-22738.
2. Brinkman-Van der Linden, E.C. and Varki, A. 2000. New aspects of siglec binding specificities, including the significance of fucosylation and of the sialyl-Tn epitope. Sialic acid-binding immunoglobulin superfamily lectins. J. Biol. Chem. 275: 8625-8632.
3. Brinkman-Van der Linden, E.C., et al. 2000. Loss of N-glycolylneuraminic acid in human evolution. Implications for sialic acid recognition by siglecs. J. Biol. Chem. 275: 8633-8640.
4. Yousef, G.M., et al. 2002. Genomic organization of the siglec gene locus on chromosome 19q13.4 and cloning of two new siglec pseudogenes. Gene 286: 259-270.
5. Blixt, O., Collins, et al. 2003. Sialoside specificity of the siglec family assessed using novel multivalent probes: identification of potent inhibitors of myelin-associated glycoprotein. J. Biol. Chem. 278: 31007-31019.
6. Lock, K., et al. 2004. Expression of CD33-related siglecs on human mononuclear phagocytes, monocyte-derived dendritic cells and plasmacytoid dendritic cells. Immunobiology 209: 199-207.
7. Crocker, P.R., et al. 2007. Siglecs and their roles in the immune system. Nat. Rev. Immunol. 7: 255-266.

CHROMOSOMAL LOCATION

Genetic locus: SIGLEC6 (human) mapping to 19q13.3.

SOURCE

Siglec-6 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of Siglec-6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-51428 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Siglec-6 (S-18) is recommended for detection of Siglec-6 isoform 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg 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-6 siRNA (h): sc-72251, Siglec-6 shRNA Plasmid (h): sc-72251-SH and Siglec-6 shRNA (h) Lentiviral Particles: sc-72251-V.

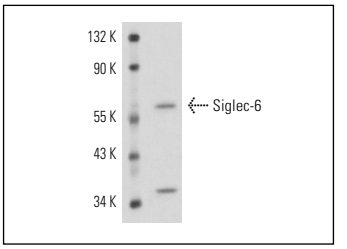
Molecular Weight of Siglec-6: 56 kDa.

Positive Controls: U-698-M cell lysate or U266 cell lysate.

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-6 (S-18): sc-51428. Western blot analysis of Siglec-6 expression in U266 whole cell lysate

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.

PROTOCOLS

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