

Siglec-10 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P72476
Synonyms:	Sialic acid-binding Ig-like lectin 10; Siglec-10; SIGLEC10; SLG2
Species:	Human
Source:	HEK293
Accession:	Q96LC7 (M17-T546)
Gene ID:	89790
Molecular Weight:	110-130 kDa

PROPERTIES

AA Sequence

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MDGRFWIRVQ   ESVMVPEGLC   ISVPCSFSP   RQDWTGSTPA
YGYWFKAVTE   TTKGAPVATN   HQSREVE MST  RGRFQLTGDP
AKGNCSLVIR   DAQMQDESQY   FFRVERGSYV  RYNFMNDGFF
LKVTALTQKP   DVYIPETLEP   GQPVTVICVF  NWA FEECPPP
SFSWTGAALS   SQGTKPTTSH   FSVLSFTPRP  QDHNTDLTCH
VDFSRKGVSA   QRTVRLRVAY   APRDLVISIS  RDNTPALEPQ
PQGNVPYLEA   QKGQFLRLLC  AADSQPPATL  SWVLQNRVLS
SSHPWGP RPL   GLELPGVKAG   DSGRYTCRAE  NRLGSQQRAL
DLSVQYPPEN   LRMVVSQANR  TVLENLGNGT  SLPVLEGQSL
CLVCVTHSSP   PARLSWTQRG  QVLSPSQPSD  PGVLELPRVQ
VEHEGEFTCH   ARHPLGSQHV  SLSLSVHYS P  KLLGPSCSWE
AEGLHCSCSS   QASPAPSLRW  WLGEELEGN  SSQDSFEVTP
SSAGPWANSS   LSLHGGLSSG  LRLRCEAWN V  HGAQSGSILQ
LPDKKGLIST
  
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Biological Activity

1. Immobilized Human Siglec-10 at 2 µg/mL (100 µL/well) can bind Anti-Siglec-10 Antibody, The ED₅₀ is 8.695 ng/mL, corresponding to a specific activity is 1.15×10⁵ units/mg.

2. Immobilized Anti-Human Siglec10 mAb at 2 µg/mL (100 µl/well) can bind Human Siglec-10-Fc. The ED₅₀ of Human Siglec-10-Fc is 44.9 ng/mL.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM Tris-HCl, 6% Sucrose, 4% Mannitol, 50mM NaCl, 0.05% Tween 80, pH 8.0.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is

recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Siglec-10 protein, recognized as a putative adhesion molecule, functions in sialic-acid dependent cellular binding, displaying a preference for alpha-2,3- or alpha-2,6-linked sialic acid. The sialic acid recognition site of Siglec-10 may undergo masking due to cis interactions with sialic acids on the same cell surface. In immune responses, it appears to act as an inhibitory receptor, inducing ligand-induced tyrosine phosphorylation and recruiting cytoplasmic phosphatases via their SH2 domains, blocking signal transduction through dephosphorylation of signaling molecules. Siglec-10 is involved in the negative regulation of B-cell antigen receptor signaling, dependent on PTPN6/SHP-1. In association with CD24, it may participate in the selective suppression of the immune response to danger-associated molecular patterns (DAMPs) such as HMGB1, HSP70, and HSP90. Siglec-10, in collaboration with CD24, regulates the immune response of natural killer (NK) cells and plays a role in the control of autoimmunity. During the initiation of adaptive immune responses by CD8-alpha(+) dendritic cells, Siglec-10 inhibits cross-presentation by impairing the formation of MHC class I-peptide complexes, implicating the recruitment of PTPN6/SHP-1 and promoting phagosomal acidification. Siglec-10 interacts with various proteins, including PTPN6/SHP-1, NCF1, CD24, HMGB1, RIGI, CBL, and PTPN11.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA