

## Siglec-10 Protein, Human (R119A, HEK293, His-Avi)

Cat. No.:	HY-P78514
Synonyms:	SLG2; SIGLEC10; MGC126774; PRO940
Species:	Human
Source:	HEK293
Accession:	Q96LC7 (M17-T546)
Gene ID:	89790
Molecular Weight:	70-90 kDa

### PROPERTIES

#### AA Sequence

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MDGRFWIRVQ   ESVMVPEGLC   ISVPCSF SYP   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   SLPVLEGGSL
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** Immobilized Human Siglec-10 (R119A) His at 0.5 µg/mL (100 µL/Well) on the plate. Dose response curve for Anti-Siglec-10 (R119A) Antibody hFc with the EC<sub>50</sub> of 18 ng/mL determined by ELISA.

**Appearance** Lyophilized powder.

**Formulation** Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 150 mM NaCl, 200 mM Arginine, 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 ddH<sub>2</sub>O.

**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.

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## 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.**

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