

Siglec-10 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P70448
Synonyms:	SIGLEC10; SiglecG; Siglec-G; MGC126774; PRO940; Siglec10; SLG2; sialic acid-binding Ig-like lectin 10; Siglec-10; siglec-like gene 2; Siglec-like protein 2; SLG2sialic acid binding Ig-like lectin 10 Ig-like lectin 7
Species:	Mouse
Source:	HEK293
Accession:	Q80ZE3 (M19-K543)
Gene ID:	243958
Molecular Weight:	110-135 kDa

PROPERTIES

AA Sequence	<pre> M E S Y F L Q V Q R I V K A Q E G L C I F V P C S F S S P E G K W L N R S P L Y G Y W F K G I R K P S L S F P V A T N N K D K V L E W E A R G R F Q L L G D I S K K N C S L L I K D V Q W G D S T N Y F F R M E R G F E R F S F K E E F R L Q V E A L T Q K P D I F I P E V L E P G E P V T V V C L F S W T F N Q C P A P S F S W M G D A V S F Q E S R P H T S N Y S V L S F I P G L Q H H D T E L T C Q L D F S R M S T Q R T V R L R V A Y A P R S L A I S I F H D N V S V P D L H E N P S H L E V Q Q G Q S L R L L C T A D S Q P P A T L S W V L E D Q V L S W S S P V G S R T L A L E L P W V K A G D S G H Y T C Q A E N R L G S Q Q H T L D L S V L Y P P Q D L R V T V S Q A N R T V L E I L R N A I S L P V L E G Q S L C L V C V T Y S N P P A N V S W A W V T Q T L I P I Q S S E P G V L E L P L V Q R E H E G E F T C A A Q N P L G A Q R I S L S L S V H Y P P Q M S S P S C S W E A K G L H C N C S S R A W P A P S L R W R L G E G L L E G N S S N A S F T V T F S S L G P W V N S S L S L L Q E L G P S L W L S C E S W N T H G A Q T T S V L L L P D K D S A T A F S K </pre>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
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 ₂ O. 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, identified as a putative adhesion molecule, serves as a mediator of sialic-acid-dependent binding to cells, with a preference for alpha-2,3- or alpha-2,6-linked sialic acid. The sialic acid recognition site may undergo masking through cis interactions with sialic acids on the same cell surface. In the immune response, Siglec-10 functions as an inhibitory receptor, achieving ligand-induced tyrosine phosphorylation and recruiting cytoplasmic phosphatases via their SH2 domains to block signal transduction through the dephosphorylation of signaling molecules. Notably, it participates in the negative regulation of B-cell antigen receptor signaling, specifically acting on B1 cells to inhibit Ca(2+) signaling, cellular expansion, and antibody secretion. This inhibition is dependent on PTPN6/SHP-1. Siglec-10, in association with CD24, may be involved in selectively suppressing the immune response to danger-associated molecular patterns (DAMPs) and regulating the immune response of natural killer (NK) cells. Furthermore, it plays a role in controlling autoimmunity and, during the initiation of adaptive immune responses by CD8-alpha(+) dendritic cells, inhibits cross-presentation by impairing the formation of MHC class I-peptide complexes. Additionally, in the context of microbial infection by RNA viruses, Siglec-10 inhibits RIG-I signaling in macrophages by promoting its CBL-dependent ubiquitination and degradation via PTPN11/SHP-2. The multifaceted roles of Siglec-10 highlight its intricate involvement in diverse cellular processes and immune modulation.

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