**Proteins** 



# Siglec-10 Protein, Human (HEK293, Fc-Avi)

Cat. No.: HY-P78516

Synonyms: SLG2; SIGLEC10; MGC126774; PRO940

Species: Human HEK293 Source:

Accession: Q96LC7 (M17-T546)

Gene ID: 89790

**Molecular Weight:** 95-110 kDa

### **PROPERTIES**

Biological Activity	Immobilized Human Siglec-10 at $2\mu g/ml$ ( $100\mu l/Well$ ) on the plate. Dose response curve for Biotinylated Anti-Siglec-10 Antibody, hFc Tag with the EC <sub>50</sub> of 14.4ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ 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.

#### **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.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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