Recombinant Human Siglec-10 (C-mFc)

Catalog Number: PKSH033911

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

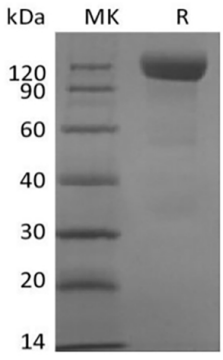
Description

Species	Human
Source	HEK293 Cells-derived Human Siglec-10 protein Met17-Thr546, with an C-terminal mFc
Calculated MW	84.6 kDa
Observed MW	110-120 kDa
Accession	Q96LC7
Bio-activity	Immobilized Anti-Human Siglec10 mAb at 2μg/ml (100 μl/well) can bind Human Siglec-10-mFc(Cat#PKSH033911). The ED_{50} of Human Siglec-10-mFc is 18.16 ng/ml.

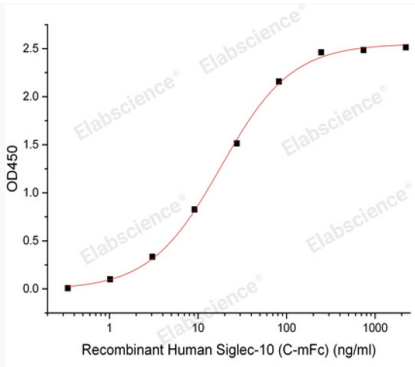
Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.



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Background

Siglecs (sialic acid binding Ig-like lectins) are I-type lectins that belong to the immunoglobulin superfamily. They are characterized by an N-terminal Ig-like V-type domain which mediates sialic acid binding, followed by a varying number of Ig-like C2-type domains. Siglecs 5-11 constitute the CD33/Siglec-3 related group, and are differentially expressed in the hematopoietic system. Siglec-G is the apparent ortholog of human Siglec-10. We describe here a novel member of the siglec protein family that shares a similar structure including five Ig-like domains, a transmembrane domain, and a cytoplasmic tail containing two ITIM-signaling motifs. Siglec-10 was identified through database mining of an asthmatic eosinophil EST library. Siglec-10 binds sialated proteins and lipids in alpha 2,3 or alpha 2,6 linkage and shows a preference for GT1b gangliosides. This binding can be modulated by cis interactions of Siglec-10 with sialated molecules expressed on the same cell. When tyrosine phosphorylated, the cytoplasmic ITIMs interact with phosphatases SHP-1 and SHP-2 to propagate inhibitory signals. The Siglec-10-VAP-1 interaction seems to mediate lymphocyte adhesion to endothelium and has the potential to modify the inflammatory microenvironment via the enzymatic end products.

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