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Product datasheet for TP726665

Siglecg Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Mouse Siglec-10 (C-Fc)
Species:	Mouse
Expression cDNA Clone or AA Sequence:	Met19-Lys543
Tag:	C-Fc
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS,pH7.4.
Note:	Recombinant Mouse Sialic Acid-binding Ig-like Lectin 10 is produced by our Mammalian expression system and the target gene encoding Met19-Lys543 is expressed with a Fc tag at the C-terminus.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Locus ID:	243958
UniProt ID:	Q80ZE3
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

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Summary:

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.