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Product datasheet for TL507433

Siglecg Mouse shRNA Plasmid (Locus ID 243958)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Siglecg Mouse shRNA Plasmid (Locus ID 243958)
Locus ID:	243958
Synonyms:	9830164H23; A630096C01Rik; mSiglec-G; Siglec-G; Siglec10
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Siglecg - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 243958). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	BC114981, NM_172900, NM_172900.1, NM_172900.2, NM_172900.3
UniProt ID:	Q80ZE3

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Summary:

Putative adhesion molecule that mediates sialic-acid dependent binding to cells. Preferentially binds to alpha-2,3- or alpha-2,6-linked sialic acid (PubMed:20038598). The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface. In the immune response, seems to act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules (By similarity). Involved in negative regulation of B-cell antigen receptor signaling and specifically acts on B1 cells to inhibit Ca(2+) signaling, cellular expansion and antibody secretion (PubMed:17572677). The inhibition of B cell activation is dependent on PTPN6/SHP-1 (PubMed:23836061). In association with CD24 may be involved in the selective suppression of the immune response to danger-associated molecular patterns (DAMPs) such as HMGB1, HSP70 and HSP90 (PubMed:19264983). In association with CD24 may regulate the immune repsonse of natural killer (NK) cells (By similarity). Plays a role in the control of autoimmunity (PubMed:20200274). During initiation of adaptive immune responses by CD8-alpha(+) dendritic cells inhibits cross-presentation by impairing the formation of MHC class I-peptide complexes. The function seems to implicate recruitment of PTPN6/SHP-1, which dephosphorylates NCF1 of the NADPH oxidase complex consequently promoting phagosomal acidification (PubMed:27548433).[UniProtKB/Swiss-Prot Function]

shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).