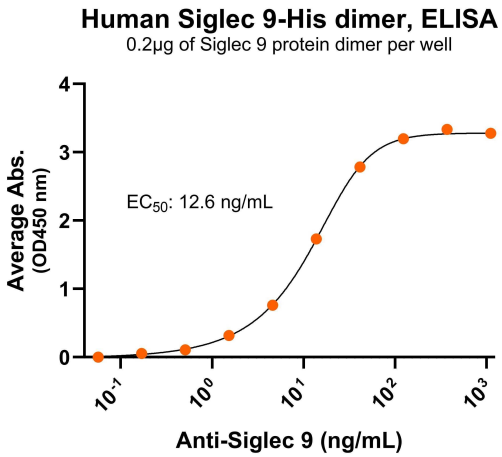
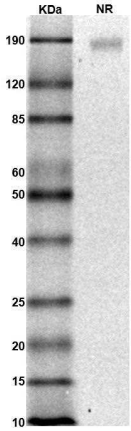
Bioactivity – Antibody Binding



Immobilized human Siglec 9 protein dimer, His Tag (CSP-25206-01) at 2 μg/mL (100 μL/well) can bind anti-human Siglec 9 monoclonal antibody with half maximal effective concentration (EC50) range of 6.3-25.3 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: Siglec 9 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing condition is ~190 kDa on SDS PAGE.

Human Siglec 9 Protein Dimer, His Tag
Product Code: CSP-25206-01
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
Siglec 9

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Alternate Name(s)
Cluster of Differentiation 329, CD329, CDw329, FOAP-9, OBBP-LIKE, sialic acid binding Ig like lectin 9

Protein Construct
Siglec 9 dimer protein contains a Siglec 9 extracellular domain (UniProt# Q9Y336) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range

SDS-Page Molecular Weight
88 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is ~190 kDa on SDS PAGE.

Formulation
0.22µm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Human Sialic acid-binding Ig-like lectin 9 (Siglec 9) is a member of the Siglec family, part of the immunoglobulin superfamily, and a multifunctional immune regulator. It plays an important role in the immune system, especially in regulating inflammation and immune cell activation. Siglec 9 is also known as Cluster of Differentiation 329 (CD329), CDw329, FOAP-9, and OBBP-LIKE. Siglec 9 is a Type I transmembrane protein. It contains an extracellular domain with an N-terminal V-type immunoglobulin domain (Ig domain) and two C2-type Ig domains followed by a transmembrane domain and cytoplasmic signaling domain consisting of the immunoreceptor tyrosine-based inhibitory motif (ITIM). Siglec 9 is expressed on monocytes, neutrophils, and dendritic cells. It binds sialylated glycans on cell surfaces or secreted proteins, modulating cell-cell interactions and immune responses. Siglec 9 can form homodimers on the cell surface that plays a role in ligand binding, signal transduction, and receptor clustering. Some tumors express high levels of sialic acids to engage Siglec 9 and suppress immune attacks — potential immune evasion mechanism. The interaction of sialic acids with Siglecs is associated with suppression of anti-tumor responses has made Siglecs an emerging target for cancer therapeutics.