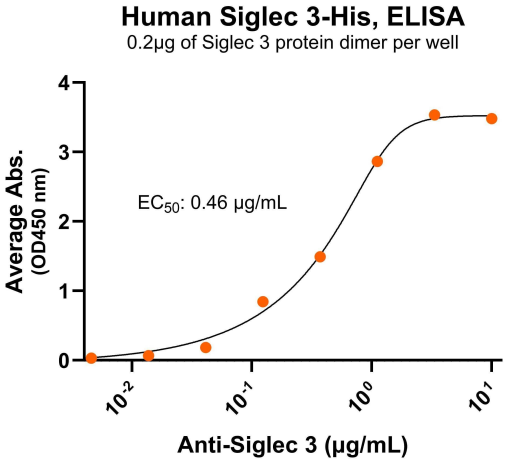
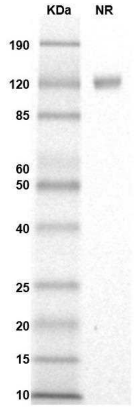
Bioactivity – Antibody Binding



Immobilized human Siglec 3 protein dimer, His Tag (CSP-25200-01) at 2 μg/mL (100 μL/well) can bind anti-human Siglec 3 monoclonal antibody with half maximal effective concentration (EC50) range of 0.23-0.91 μg/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: Siglec 3 dimer under non-reduced condition

The migration range of the heterodimer protein with glycosylation under non-reducing condition is ~120 kDa on SDS PAGE.

Human Siglec 3 / CD33 Protein Dimer, His Tag
Product Code: CSP-25200-01
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
Siglec 3

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

Alternate Name(s)
cluster of differentiation 33, CD33, p67

Protein Construct
Siglec 3 dimer protein contains a Siglec 3 extracellular domain (UniProt# P20138) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
D18-H259

SDS-Page Molecular Weight
70 kDa. The migration range of the heterodimer protein with glycosylation under non-reducing condition is ~120 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 3 (Siglec 3, Siglec-3) is a member of the sialic acid-binding immunoglobulin-like lectin (Siglec) family. Siglec 3 is also known as Cluster of Differentiation (CD33) and p67. It's part of the immunoglobulin superfamily, and a multifunctional immune regulator in the innate immune system. Siglec 3 is a Type I transmembrane protein and can form homodimers on the cell surface. It contains an extracellular domain with an N-terminal V-type immunoglobulin domain (Ig domain) and a C2-type Ig domains followed by a transmembrane domain and cytoplasmic signaling domain consisting of the immunoreceptor tyrosine-based inhibitory motif (ITIM). Siglec 3/CD33 is expressed on myeloid progenitors and monocytes. It binds sialylated glycans on cell surfaces or secreted proteins, modulating cell-cell interactions and immune responses. The overexpression of Siglec 3 is linked with the development of Alzheimer's disease and is an emerging target for therapeutics.