

Siglec-2/CD22 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P72474A
Synonyms:	B-cell receptor CD22; BL-CAM; Siglec-2; CD22; Lyb-8
Species:	Mouse
Source:	HEK293
Accession:	P35329-1 (S22-P702)
Gene ID:	12483
Molecular Weight:	95-130 kDa

PROPERTIES

AA Sequence

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SANDWTV DHP      QTLFAWEGAC      IRIPCKYKTP      LPKARLDN I L
LFQNYEFDKA      TKKFTGTVLY      NATKTEKDPE      SELYLSKQGR
VTFLGNRIDN      CTLKIHPIRA      NDSGNLGLRM      TAGTERWMEP
IHLNVSEKPF      QPYIQMPSEI      RESQSVTLTC      GLNFSCFGYD
ILLKWFLEDS      EITSITSSVT      SITSSVTSSI      KNVYTESKLT
FQPKWTDHGK      SVKQCQVQHSS     KVLSERTVRL      DVKYTPKLEI
KVNPTVEVEKN     NSVTMTCRVN      SSNPKLRTVA      VSWFKDGRPL
EDQELEQEQQ      MSKLILHSVT      KDMRGKYRCQ      ASNDIGPGES
EEVELTVHYA      PEP SRVHIYP     SPAEEGQSVE      LICESLASPS
ATNYTWYHNR      KPIPGDTQEK      LRIPKVS PWH     AGNYSCLAEN
RLGHGKIDQE      AKLDVHYAPK      AVTTVIQSFT      PILEGDSVTL
VCRYNSSNP D      VTSYRWNPQG      SGSVLKPGVL      RIQKVTWDSM
PVSCAACNHK      CSWALPVI LN     VHYAPRDVKV     LKVSPASEIR
AGQRVLLQCD      FAESNPAEVR      FFWKKNGSLV     QEGRYLSFGS
VSPEDSGNYN      CMVNNSIGET      LSQAWN LQVL     YAPRRLRVSI
SPGDHVM EGK     KATLSCESDA     NPPI SQYTFW     DSSGQDLHSS
GQKLRLEPLE      VQHTGSYRCK     GTNGIGTGES     PPSTLTVVYS
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Biological Activity Measured by the ability of the immobilized protein to support the adhesion of Jurkat human T-lymphocyte leukemia cells. The ED₅₀ this effect is 0.6816 µg/mL, corresponding to a specific activity is 1.467×10³ units/mg

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

Siglec-2/CD22 protein functions as a mediator of B-cell interactions and is potentially involved in the localization of B-cells within lymphoid tissues. This protein selectively binds to sialylated glycoproteins, with a preference for alpha-2,6-linked sialic acid, and one of its binding partners is CD45. The recognition site for sialic acid can be masked through cis interactions with sialic acids on the same cell surface. Upon ligand-induced tyrosine phosphorylation during immune responses, Siglec-2/CD22 is implicated in the regulation of B-cell antigen receptor signaling. It plays a dual role in signaling, positively regulating interactions with Src family tyrosine kinases and potentially acting as an inhibitory receptor by recruiting cytoplasmic phosphatases via their SH2 domains. This recruitment blocks signal transduction through the dephosphorylation of signaling molecules. In molecular interactions, Siglec-2/CD22 associates with proteins such as LYN, SYK, PIK3R1/PIK3R2, PLCG1, SHC1, INPP5D, and GRB2 upon phosphorylation, suggesting its involvement in complex signaling networks that modulate B-cell responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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