

sCD100/Semaphorin-4D, Human recombinant protein
Semaphorin-4D, BB18, A8, GR3
Catalog # PBV10761r**Specification****sCD100/Semaphorin-4D, Human recombinant protein - Product info**

Primary Accession [Q92854](#)
Calculated MW **78.9 kDa** KDa

sCD100/Semaphorin-4D, Human recombinant protein - Additional Info

Gene ID **10507**
Gene Symbol **CD100**

Other Names

Semaphorin-4D, BB18, A8, GR3

Gene Source **Human**
Source **CHO cells**
Assay&Purity **SDS-PAGE; ≥97%**
Assay2&Purity2 **HPLC;**
Recombinant **Yes**
Sequence

FAPIPRITWE HREVHLVQFH EPDIYNYSAL
LLEDKDTLY IGAREAVFAV NALNISEKQH
EVYWKVSEDK KAKCAEKGKS KQTECLNYIR
VLQPLSATSL YVCGTNAFQP ACDHLNLTSE
KFLGKNEDGK GRCPFDPAHS YTSVMVDGEL
YSGTSYNFLG SEPIISRNSS HSPLRTEYAI
PWLNEPSFVF ADVIRKSPDS PDGEDDRVYF
FFTEVSVEYE FVFRVLIPRI ARVCKGDQGG
LRTLQKKWTS FLKARLICSR PDSGLVFNVL
RDVFLRSPG LKVPVFYALF TPQLNNVGLS
AVCAYNLSTA EEVFSHGKYM QSTTVEQSHT
KWVRYNGPVP KPRPGACIDS EARAANYTSS
LNLDPDKTLQF VKDHPLMDDS VTPIDNRPR
IKKDVNYTQI VVDRTQALDG TVYDVMFVST
DRGALHKAIS LEHAVHIIIE TQLFQDFEPV
QTLSSSKKG NRFVYAGSNS GVVQAPLAF
GKHGTCEDCV LARDPYCAWS PPTATCVALH
QTESPSRGLI QEMSGDASVC PDKSKGSYRQ
HFFKHGGTAE LKCSQKSNLA RVFWKFQNGV
LKAESPKYGL MGRKNLLIFN LSEGDSGVYQ
CLSEERVKNK TVFQVVAHV LEVKVVPKP
VAPTLSVVQT EGSRIATKVL VASTQGSSPP
TPAVQATSSG AITLPPKPAP TGTSCPEKIV
INTVPLHSE KTMYLKSSDN R

Target/Specificity
sCD100

Application Notes

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do

not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Format

Lyophilized powder

Storage

-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Phosphate, pH 7.5.

sCD100/Semaphorin-4D, Human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

sCD100/Semaphorin-4D, Human recombinant protein - Images**sCD100/Semaphorin-4D, Human recombinant protein - Background**

The Semaphorins are a large family of phylogenetically conserved proteins that play a pivotal role in maintaining homeostasis in the immune system. Twenty members of this family have been identified and categorized into eight subclasses based on sequence similarity and distinctive structural features. CD100, also known as Sema4D, is a 150 kDa transmembrane class IV semaphorin. Studies have shown that CD100 can induce monocyte migration, T-cell activation, and B-cell survival, as well as T/B cell and T/DC “cooperation”. The CD100 precursor contains 862 amino acids, including a 21 aa. signal sequence, a 713 aa. extracellular domain, a 21 aa transmembrane sequence, and a 107 aa cytoplasmic region. The extracellular sequence contains several structural features, including a 479 aa “sema” domain, a 79 aa. Ig-like sequence, and a 52 aa “Plexin-type repeat”. Recombinant soluble CD100 is a 78.9 kDa protein comprising the extracellular domain of CD100 (711 amino acids). SDS-PAGE analysis run under non-reducing conditions shows a mixture of disulfide linked dimer and monomer.

sCD100/Semaphorin-4D, Human recombinant protein - References

Hall K.T.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:11780-11785(1996).
Humphray S.J.,et al.Nature 429:369-374(2004).
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Tamagnone L.,et al.Cell 99:71-80(1999).
Basile J.R.,et al.Mol. Cell. Biol. 25:6889-6898(2005).