

Synonym

SEMA4D,C9orf164,CD100,FLJ33485,FLJ34282,FLJ39737,FLJ46484,M-sema-G,MGC169138,MGC169141,SEMAJ,coll-4,Semaphorin-4D

Source

Human SEMA4D, Fc Tag(CD0-H5257) is expressed from human 293 cells (HEK293). It contains AA Met 22 - Arg 734 (Accession # [AAH54500](#)).
Predicted N-terminus: Met 22

Molecular Characterization

SEMA4D(Met 22 - Arg 734) AAH54500	Fc(Pro 100 - Lys 330) P01857
--------------------------------------	---------------------------------

This protein carries a human IgG1 Fc tag at the C-terminus.
The protein has a calculated MW of 105.4 kDa. The protein migrates as 125-160 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5 with trehalose as protectant.
Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.
For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

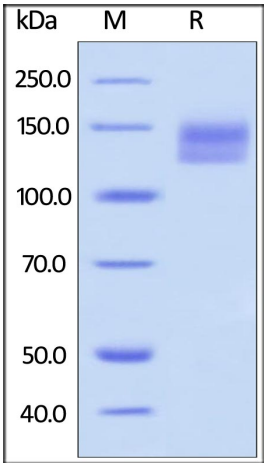
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

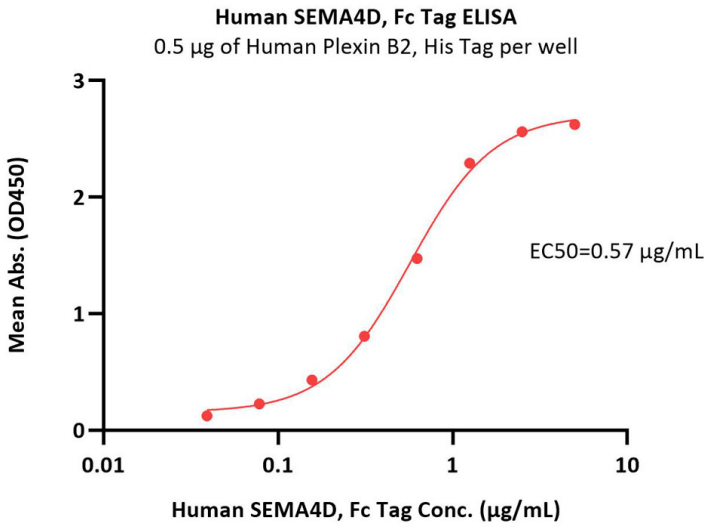
SDS-PAGE



Human SEMA4D, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA





Immobilized Human Plexin B2, His Tag (Cat. No. PL2-H52H3) at 5 µg/mL (100 µL/well) can bind Human SEMA4D, Fc Tag (Cat. No. CD0-H5257) with a linear range of 0.039-1.25 µg/mL (Routinely tested).

Background

Cluster of Differentiation 100 (CD100) is also known as Semaphorin-4D (SEMA4D), is a single-pass type I membrane protein which belongs to the semaphorin family, and is a human 150-kDa homodimer expressed at the surface of most hemopoietic cells. Semaphorin genes encode soluble and membrane-bound proteins, most of which have been shown to act as chemorepellents on growth cone guidance. CD100 is discrete, as it is a transmembrane leukocyte surface molecule that can also exist in a soluble form. Semaphorin 4D (Sema 4D) is an axon guidance molecule which is secreted by oligodendrocytes and induces growth cone collapse in the central nervous system. By binding plexin B1 receptor it functions as an R-Ras GTPase-activating protein (GAP) and repels axon growth cones in both the mature central nervous system. In the immune system, CD100 binds CD72 to activate B cells and dendritic cells, though much about this interaction is still under investigation. It is involved in oligodendrogenesis during development and during recovery from ischemic injury.

