

## HUMAN SEMA4D PROTEIN, HIS TAG

**Cat.#:** 11795

**Product Name:** Human SEMA4D Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** A8;BB18;GR3;CD100;C9orf164;CD100;SEMAJ

**Target:** SEMA4D

**UNIPROT ID:** Q92854

**Description:** Recombinant human SEMA4D protein with C-terminal 6xHis tag

**Background:** Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (PubMed:20877282). Regulates GABAergic synapse development (By similarity). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner (By similarity). Modulates the complexity and arborization of developing neurites in hippocampal neurons by activating PLXNB1 and interaction with PLXNB1 mediates activation of RHOA (PubMed:19788569). Promotes the migration of cerebellar granule cells (PubMed:16055703). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:8876214). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed:16055703).[UniProtKB/Swiss-Prot Function]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 80 kDa after removal of the signal peptide. The apparent molecular mass of SEMA4D-His is approximately 95-130 kDa due to glycosylation.

**Molecular Characterization:** SEMA4D(Met22-Arg734) 6×His tag

**Purity:** The purity of the protein is greater than 85% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.



Figure 1. Human SEMA4D Protein, His Tag on SDS-PAGE under reducing condition.