

Human CellExp™ SEMA4D /CD100, human recombinant

CATALOG #: 7439-10 10 µg
7439-50 50 µg

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

SOURCE: HEK 293 cells (Met 22 – Arg 734)

PURITY: ≥ 95% by SDS-PAGE gel

MOL. WEIGHT: This protein is fused with Fc fragment of human IgG1 at the C-terminus, has a calculated MW of 105.4 kDa expressed. The predicted N-terminus is Met 22. Protein migrates as 120-140 kDa in reduced SDS-PAGE due to glycosylation.

ENDOTOXIN LEVEL: <1 EU/µg by LAL method

FORM: Lyophilized

FORMULATION: Lyophilized from 0.22 µm filtered solution in 50 mM tris, 100 mM glycine, pH 7.0. Normally Mannitol or Trehalose is added as protectants before lyophilization.

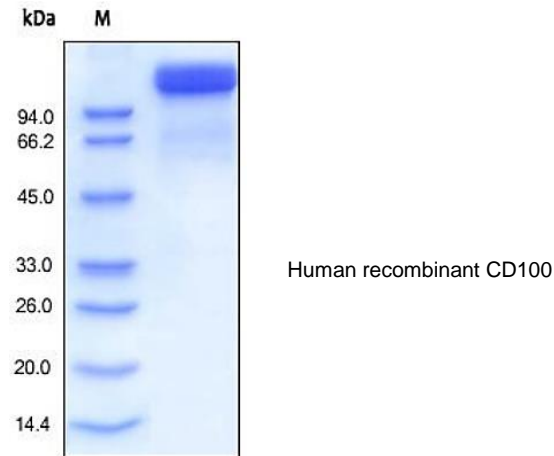
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

DESCRIPTION: Cluster of Differentiation 100 (CD100), 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.

BIOLOGICAL ACTIVITY: Measured by its ability to promote the survival and differentiation of human peripheral blood monocytes. The ED₅₀ for this effect is typically 2.0-6.3 µg/ml.



RELATED PRODUCTS:

- Human CellExp™ CD223, human recombinant (Cat. No. 7278-10, -50)
- Human CellExp™ CD71, human recombinant (Cat. No. 7279-10, -50)
- Human CellExp™ CD273, human recombinant (Cat. No. 7369-10, -50)
- Human CellExp™ CD33, human recombinant (Cat. No. 7370-10, -50)
- Human CellExp™ CD36, human recombinant (Cat. No. 7371-10, -50)
- Human CellExp™ CD87, human recombinant (Cat. No. 7372-20, -100)
- Human CellExp™ CD360, human recombinant (Cat. No. 7373-20, -100)
- Human CellExp™ CD244, human recombinant (Cat. No. 7374-10, -50)
- Human CellExp™ CD304, human recombinant (Cat. No. 7375-10)
- Human CellExp™ CD319, human recombinant (Cat. No. 7376-10, -50)
- Human CellExp™ CD306, human recombinant (Cat. No. 7377-10, -50)
- Human CellExp™ CD84, human recombinant (Cat. No. 7378-10, -50)

