

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived human Semaphorin 4B protein		
	Human Semaphorin 4B (Leu44-Glu717) Accession # Q9NPR2.4	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	101 kDa		

SPECIFICATIONS

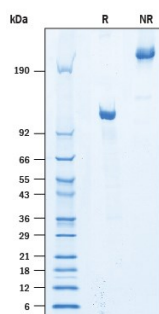
SDS-PAGE	105-118 kDa, under reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

SDS-PAGE



Recombinant Human Semaphorin 4B Fc Chimera Protein SDS-PAGE 2 µg/lane of Recombinant Human Semaphorin 4B Fc Chimera (Catalog # 10262-S4) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 105-118 kDa and 210-240 kDa, respectively.

BACKGROUND

Semaphorin 4B (Sema4B) is a 95-100 kDa, class IV member of the Semaphorin family of proteins (1). Mature human Sema4B is a type I transmembrane glycoprotein that is 794 amino acids (aa) in length. It contains a 674 aa extracellular domain (ECD) that is characterized by one Sema domain, a PSI region, and an Ig-like C2-type domain. Within the ECD, human Sema4B shares 85% and 86% aa identity with the mouse and rat Sema4B, respectively (1, 2). Sema4B is expressed in hippocampal neurons, glial cells, and immune cells (3, 4). It colocalizes and interacts with PSD-95 and participates in the formation or functioning of glutamatergic synapses (4). Sema4B^{-/-} mice display reduced proliferation of astrocytes after CNS injury (5). In the immune system, Sema4B is a negative regulator of basophil-mediated immune response and is implicated in the development of lung cancer (6, 7).

References:

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