

Recombinant Human Semaphorin-3G/SEMA3G Protein

Catalog No.: RP01400

Sequence Information

Species **Gene ID**
Human 56920

Swiss Prot **Tags**
Q9NS98 C-His

Synonyms
SEMA3G,sem2

Product Information

Source **Purification**
HEK293 cells ≥ 90 % as
determined by
SDS-PAGE.

Calculated MW **Observed MW**
87.54 kDa 100-115 kDa

Endotoxin
Please contact us for more
information.

Formulation
Lyophilized from a 0.22 µm filtered
solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening.
Reconstitute to a concentration of
0.1-0.5 mg/mL in sterile distilled
water. Avoid vortex or vigorously
pipetting the protein. For long
term storage, it is recommended
to add a carrier protein or stabilizer
(e.g. 0.1% BSA, 5% HSA, 10% FBS
or 5% Trehalose), and aliquot the
reconstituted protein solution to
minimize free-thaw cycles.

Background

Semaphorin 3G (Sema3G), also known as Semaphorin sem2, is a class 3 member of the semaphorin family initially identified as regulators of neuron-axonal guidance. More than 30 semaphorins have been discovered and are divided into eight classes: classes 1 and 4-7 are membrane-associated, while classes 2, 3, and 8 are in a secreted form. In vitro analysis shows Sema 3G binds to Neuropilin-2, which forms a receptor complex with Plexin-D1. Via this pathways Sema 3G controls lymphatic vascular patterning by the means of cellular collapse. It shows protective effects in ischemic retinopathies by coordinating interactions of beta -catenin and VE-Cadherin in endothelium. Sema 3G has been shown to be involved in adipocyte differentiation. Knockdown of Sema3G inhibited weight gain through PI3K/Akt/GSK3 beta signaling in the adipose tissue and the AMPK/SREBP-1c pathway in the liver. Thus, Sema 3G is an adipokine essential for adipogenesis, lipogenesis, and insulin resistance and is associated with obesity.

Basic Information

Description

Recombinant Human Semaphorin-3G/SEMA3G Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Thr782) of human SEMA3G (Accession #NP_064548.1) fused with a 6×His tag at the C-terminus.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

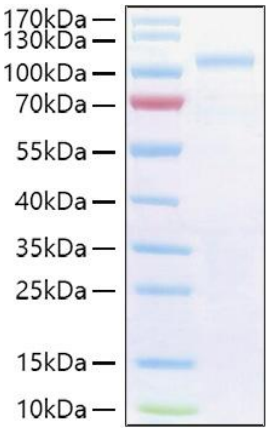
Contact

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Validation Data



Recombinant Human Semaphorin-3G/SEMA3G Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.