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Produktinformation



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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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PRODUCT INFORMATION



Sema3A Sema Domain (human, recombinant; aa 26-546)

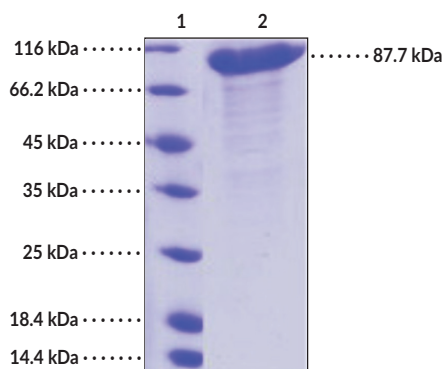
Item No. 38070

Overview and Properties

Synonyms: Sema III, Semaphorin-3A, Semaphorin III
Source: Recombinant N-terminal human IgG1 Fc-tagged Sema3A expressed in HEK293 cells
Amino Acids: 26-546
Uniprot No.: Q14563
Molecular Weight: 87.7 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥90% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing: <1.0 EU/μg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: Sema3A Sema Domain

SDS-PAGE Analysis of Sema3A Sema Domain. This protein has a calculated molecular weight of 87.7 kDa.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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PRODUCT INFORMATION



Description

Semaphorin-3A (Sema3A) is a secreted glycoprotein and ligand of neuropilin-1 (NRP-1) and plexin A receptors.^{1,2} It is composed of a Sema domain, which mediates signaling and receptor specificity, a plexin-semaphorin-integrin (PSI) domain, an immunoglobulin (Ig) domain, and a C-terminal domain, which contains several basic residues that are important for NRP-1 binding. Sema3A is expressed in many tissues, including nervous, bone, and connective tissues and vascular endothelium, as well as some immune cells such as T cells and macrophages.¹ It is involved in axonal guidance, bone remodeling, immunoregulation, and angiogenesis.¹⁻³ Sema3A decreases the length and number of neurites in sensory and motor neurons *in vitro* and increases vascular permeability in mice.^{4,5} Heterozygous deletion of *SEMA3A* is associated with Kallmann syndrome, a disorder characterized by hypogonadotropic hypogonadism and an absent or decreased sense of smell.⁶ Cayman's Sema3A Sema Domain (human, recombinant; aa 26-546) protein is a disulfide-linked homodimer. The reduced monomer, composed of Sema3A (amino acids 26-546) fused to human IgG1 Fc at its N-terminus, consists of 781 amino acids and has a calculated molecular weight of 87.7 kDa.

References

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6. Young, J., Metay, C., Bouligand, J., *et al.* *SEMA3A* deletion in a family with Kallmann syndrome validates the role of semaphorin 3A in human puberty and olfactory system development. *Hum. Reprod.* **27(5)**, 1460-1465 (2012).

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