Datasheet for ABIN3095315

SEMA5A Protein (AA 23-968) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	SEMA5A
Protein Characteristics:	AA 23-968
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SEMA5A protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	EAQGTTQCQR TEHPVISYKE IGPWLREFRA KNAVDFSQLT FDPGQKELVV GARNYLFRLQ LEDLSLIQAV EWECDEATKK ACYSKGKSKE ECQNYIRVLL VGGDRLFTCG TNAFTPVCTN RSLSNLTEIH DQISGMARCP YSPQHNSTAL LTAGGELYAA TAMDFPGRDP AIYRSLGILP PLRTAQYNSK WLNEPNFVSS YDIGNFTYFF FRENAVEHDC GKTVFSRAAR VCKNDIGGRF LLEDTWTTFM KARLNCSRPG EVPFYYNELQ STFFLPELDL IYGIFTTNVN SIAASAVCVF NLSAIAQAFS GPFKYQENSR SAWLPYPNPN PHFQCGTVDQ GLYVNLTERN LQDAQKFILM HEVVQPVTTV PSFMEDNSRF SHVAVDVVQG REALVHIIYL ATDYGTIKKV RVPLNQTSSS CLLEEIELFP ERRREPIRSL QILHSQSVLF VGLREHVVKI PLKRCQFYRT RSTCIGAQDP YCGWDVVMKK CTSLEESLSM TQWEQSISAC PTRNLTVDGH FGVWSPWTPC THTDGSAVGS CLCRTRSCDS PAPQCGGWQC EGPGMEIANC SRNGGWTPWT SWSPCSTTCG IGFQVRQRSC SNPTPRHGGR VCVGQNREER YCNEHLLCPP HMFWTGWGPW ERCTAQCGGG IQARRRICEN GPDCAGCNVE YQSCNTNPCP ELKKTTPWTP WTPVNISDNG GHYEQRFRYT CKARLADPNL

	LEVGRQRIEM RYCSSDGTSG CSTDGLSGDF LRAGRYSAHT VNGAWSAWTS WSQCSRDCSR GIRNRKRVCN NPEPKYGGMP CLGPSLEYQE CNILPCPVDG VWSCWSPWTK CSATCGGGHY MRTRSCSNPA PAYGGDICLG LHTEEALCNT QPCPESWSEW SDWSECEASG VQVRARQCIL LFPMGSQCSG NTTESRPCVF DSNFIPEVSV ARSSSVEEKR CGEFNM **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human SEMA5A Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Product Details

Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	SEMA5A
Alternative Name:	SEMA5A (SEMA5A Products)
Background:	Bifunctional axonal guidance cue regulated by sulfated proteoglycans, attractive effects result from interactions with heparan sulfate proteoglycans (HSPGs), while the inhibitory effects depend on interactions with chondroitin sulfate proteoglycans (CSPGs) (By similarity). Ligand for receptor PLXNB3. In glioma cells, SEMA5A stimulation of PLXNB3 results in the disassembly of F-actin stress fibers, disruption of focal adhesions and cellular collapse as well as inhibition of cell migration and invasion through ARHGDIA-mediated inactivation of RAC1. May promote angiogenesis by increasing endothelial cell proliferation and migration and inhibiting apoptosis. {ECO:0000250, ECO:0000269|PubMed:15218527, ECO:0000269|PubMed:19850054, ECO:0000269|PubMed:20696765, ECO:0000269|PubMed:21706053}.
Molecular Weight:	106.9 kDa Including tag.
UniProt:	Q13591

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process