

Datasheet for ABIN3114877

MBTPS1 Protein (AA 187-1052) (rho-1D4 tag)

1 Image

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Overview

Quantity:	1 mg
Target:	MBTPS1
Protein Characteristics:	AA 187-1052
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MBTPS1 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	RAIPRQVAQT LQADVLWQMG YTGANVRVAV FDTGLSEKHP HFKNVKERTN WTNERTLDDG LGHGTFVAGV IASMRECQGF APDAELHIFR VFTNNQVSYT SWFLDAFNIA ILKKIDVLNL SIGGPDFMDH PFVDKWWELT ANNVIMVSAI GNDGPLYGTL NNPADQMDVI GVGIDFEDN IARFSSRGMT TWELPGGYGR MKPDIVTYGA GVRGSGVKGG CRALSGTSA SPVAVAGAVTL LVSTVQKREL VNPASMKQAL IASARRLPGV NMFEQGHGKL DLLRAYQILN SYKPQASLSP SYIDLTECPY MWPYCSQPIY YGGMPTVVNV TILNGMGVTG RIVDKPDWQP YLPQNGDNIE VAFSYSSVLW PWSGYLAISI SVTKKAASWE GIAQGHVMIT VASPAETESK NGAEQTSTVK LPIKVKIPT PPRSKRVLWD QYHNLRYPPG YFPRDNLRMK NDPLDWNGDH IHTNFRDMYQ HLRSMGYFVE VLGAPFTCFD ASQYGTLLMV DSEEEYFPEE IAKLRDVDN GLSLVIFSDW YNTSVMRKVK FYDENTRQWW MPDTGGANIP ALNELLSVWN MGFSDGLYEG EFTLANHDMY YASGCSIAKF PEDGVVITQT FKDQGLEVLK QETAVVENVP ILGLYQIPAE GGGRIVLYGD SNCLDDSHRQ KDCFWLLDAL LQYTSYGVTP PSLSHSGNRQ RPPSGAGSVT PERMEGNHLH
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RYSKVLEAHL GDPKPRPLPA CPRLSWAKPQ PLNETAPSNL WKHQKLLSID LDKVVLPNFR
SNRPQVRPLS PGESGAWDIP GGIMPGRYNQ EVGQTIPVFA FLGAMVVLAFL FVVQINKAKS
RPKRRKPRVK RPQLMQQVHP PKTPSV

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 MBTPS1 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 receipt 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:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractionated by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.
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Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	MBTPS1
Alternative Name:	MBTPS1 (MBTPS1 Products)
Background:	<p>Serine protease that catalyzes the first step in the proteolytic activation of the sterol regulatory element-binding proteins (SREBPs). Other known substrates are BDNF, GNPTAB and ATF6.</p> <p>Cleaves after hydrophobic or small residues, provided that Arg or Lys is in position P4. Cleaves known substrates after Arg-Ser-Val-Leu (SERBP-2), Arg-His-Leu-Leu (ATF6), Arg-Gly-Leu-Thr (BDNF) and its own propeptide after Arg-Arg-Leu-Leu. Mediates the protein cleavage of GNPTAB into subunit alpha and beta, thereby participating in biogenesis of lysosomes. {ECO:0000269 PubMed:21719679}.</p>
Molecular Weight:	97.6 kDa Including tag.
UniProt:	Q14703
Pathways:	ER-Nucleus Signaling

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 guarantee 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
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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