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Datasheet for ABIN3136971

Actin-Like 6B Protein (ACTL6B) (AA 2-426) (His tag)

Overview

Quantity:	1 mg
Target:	Actin-Like 6B (ACTL6B)
Protein Characteristics:	AA 2-426
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Actin-Like 6B protein is labelled with His tag.
Application:	ELISA, Crystallization (Crys), SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: SGGVYGGDEV GALVFDIGSF SVRAGYAGED CPKADFPTTV GLLAAEEGGG LELEGEKEKK
GKIFHIDTNA LHVPRDGAEV MSPLKNGMIE DWECFRAILD HTYSKHVKSE PNLHPVLMSE
APWNTRAKRE KLTELMFEQY NIPAFFLCKT AVLTAFANGR STGLVLD SGA THTTAIPVHD
GYVLQQGIVK SPLAGDFISM QCRELFQEMA IDIIPPY MIA AKEPVREGAP PNWKKKEKLP
QVSKSWHNYM CNEVIQDFQA SVLQVSDSPY DEQVAAQMPT VHYEMPNGYN TDYGAERLRI
PEGLFDPSNV KGLSGNTMLG VGHVVTTSIG MCDIDIRPGL YGSVIVTGGN TLLQGFTDRL
NRELSQKTPP SMRLKLIASN STMERKFSPW IGGSILASLG TFQQM WISKQ EYEEGGKQCV ERKCP

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.
 - Mouse Actl6b Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

- 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:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">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.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Actin-Like 6B (ACTL6B)
Alternative Name:	Actl6b (ACTL6B Products)

Target Details

Background: Belongs to the chromatin remodeling brain-specific BAF (bBAF) complex, as such plays a role in remodeling mononucleosomes in an ATP-dependent fashion. Belongs to the neuron-specific chromatin remodeling complex (nBAF complex) and is required for postmitotic neural development and dendritic outgrowth. During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth. ACTL6B/BAF53B is not essential for assembly of the nBAF complex but is required for targeting the complex and CREST to the promoter of genes essential for dendritic growth. {ECO:0000269|PubMed:12368262, ECO:0000269|PubMed:17640523, ECO:0000269|PubMed:17920018}.

Molecular Weight: 47.7 kDa Including tag.

UniProt: [Q99MR0](#)

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: Protein has not been tested for activity yet. 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

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)