

Datasheet for ABIN3131449

PITX3 Protein (AA 1-302) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	PITX3
Protein Characteristics:	AA 1-302
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PITX3 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), ELISA, Crystallization (Crys), Western Blotting (WB)

Product Details

Sequence:	<p>MEFGLLGEAE ARSPALSLSD AGTPHPPLPE HGCKGQEHSD SEKASASLPG GSPEDGSLKK KQRRQRTHFT SSQLQLEAT FQRNRYPDMS TREEIAVWTN LTEARVRVWF KNRRAKWRKR ERSQQAELCK GGFAAPLGLL VPPYEEVYPG YSYGNWPPKA LAPPLAAKTF PFAFNSVNVG PLASQPVFSP PSSIAASMVP SAAAAPGTVP GPGALQGLGG APPGLAPAAV SSGAVSCPYA SAAAAAAAAA SSPYVYRDPC NSSLASRLRK AKQHASFSSYP AVPGPPPAAN LSPCQYAYER PV</p> <p>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</p>
Characteristics:	<ul style="list-style-type: none"> Made in Germany - from design to production - by highly experienced protein experts. Mouse Pitx3 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). <p>This protein is a made to order protein and will be made for the first time for your order. Our</p>

Product Details

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: 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:	PITX3
Alternative Name:	Pitx3 (PITX3 Products)
Background:	Transcriptional regulator which is important for the differentiation and maintenance of mesodiencephalic dopaminergic (mdDA) neurons during development. In addition to its importance

Target Details

during development, it also has roles in the long-term survival and maintenance of the mdDA neurons. Activates NR4A2/NURR1-mediated transcription of genes such as SLC6A3, SLC18A2, TH and DRD2 which are essential for development of mdDA neurons. Acts by decreasing the interaction of NR4A2/NURR1 with the corepressor NCOR2/SMRT which acts through histone deacetylases (HDACs) to keep promoters of NR4A2/NURR1 target genes in a repressed deacetylated state. Essential for the normal lens development and differentiation. Plays a critical role in the maintenance of mitotic activity of lens epithelial cells, fiber cell differentiation and in the control of the temporal and spatial activation of fiber cell-specific crystallins. Positively regulates FOXE3 expression and negatively regulates PROX1 in the anterior lens epithelium, preventing activation of CDKN1B/P27Kip1 and CDKN1C/P57Kip2 and thus maintains lens epithelial cells in cell cycle. {ECO:0000269|PubMed:15950611, ECO:0000269|PubMed:17184956, ECO:0000269|PubMed:19007884, ECO:0000269|PubMed:19144721, ECO:0000269|PubMed:19334279}.

Molecular Weight: 32.7 kDa Including tag.

UniProt: [O35160](#)

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 Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Handling

Expiry Date: Unlimited (if stored properly)

Images



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