Datasheet for ABIN7565025

IPO7 Protein (AA 1-1038) (His tag)

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Overview

Quantity:	1 mg
Target:	IPO7
Protein Characteristics:	AA 1-1038
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IPO7 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Ipo7 Protein expressed in mammalien cells.
Sequence:	MDPNTIIEAL RGTMDPALRE AAERQLNEAH KSLNFVSTLL QITMSEQLDL PVRQAGVIYL KNMITQYWPD REATPGDIAP YTIPEEDRHC IRENIVEAII HSPELIRVQL TTCIHHIIKH DYPSRWTAIV DKIGFYLQSD NSACWLGILL CLYQLVKNYE YKKPEERSPL VAAMQHFLPV LKDRFIQLLS DQSDQSVLIQ KQIFKIFYAL VQYTLPLELI NQQNLTEWVE ILKTVVNRDV PNETLQVEED DRPELPWWKC KKWALHILAR LFERYGSPGN VSKEYNEFAE VFLKAFAVGV QQVLLKVLYQ YKEKQYMAPR VLQQTLNYIN QGVSHALTWK NLKPHIQGII QDVIFPLMCY TDADEELWQE DPYEYIRMKF DVFEDFISPT TAAQTLLFTA CSKRKEVLQK TMGFCYQILT EPNADPRKKD GALHMIGSLA EILLKKKIYK DQMEYMLQNH VFPLFSSELG YMRARACWVL HYFCEVKFKS DQNLQTALEL TRRCLIDDRE MPVKVEAAIA LQVLISNQEK AKEYITPFIR PVMQALLHII RETENDDLTN VIQKMICEYS EEVTPIAVEM TQHLAMTFNQ VIQTGPDEEG SDDKAVTAMG ILNTIDTLLS VVEDHKEITQ QLEGICLQVI GTVLQQHVLE FYEEIFSLAH

Product Details

	SLTCQQVSPQ MWQLLPLVFE VFQQDGFDYF TDMMPLLHNY VTVDTDTLLS DTKYLEMIYS MCKKVLTGVA GEDAECHAAK LLEVIILQCK GRGIDQCIPL FVEAALERLT REVKTSELRT MCLQVAIAAL YYNPHLLLNT LENLRFPNNV EPVTNHFITQ WLNDVDCFLG LHDRKMCVLG LCALIDMEQI PQVLNQVSGQ ILPAFILLFN GLKRAYACHA EHENDSDDDE DAEDDDETEE LGSDEDDIDE DGQEYLEILA KQAGEDGDDE DWEEDDAEET ALEGYSTIID DEDNPVDEYQ IFKAIFQTIQ NRNPVWYQAL THGLNEEQRK QLQDIATLAD QRRAAHESKM IEKHGGYKFS APVVPSSFNF GGPAPGMN **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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 try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	IPO7
Alternative Name:	Ipo7 (IPO7 Products)
Background:	Importin-7 (Imp7) (Ran-binding protein 7) (RanBP7),FUNCTION: Functions in nuclear protein import, either by acting as autonomous nuclear transport receptor or as an adapter-like protein in association with the importin-beta subunit KPNB1. Acting autonomously is thought to serve itself as receptor for nuclear localization signals (NLS) and to promote translocation of import

Target Details

	substrates through the nuclear pore complex (NPC) by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran. Mediates autonomously the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5 (By similarity). In association with KPNB1 mediates the nuclear import of H1 histone and the Ran-binding site of IPO7 is not required but synergizes with that of KPNB1 in importin/substrate complex dissociation (By similarity). Promotes odontoblast differentiation via promoting nuclear translocation of DLX3, KLF4, SMAD2, thereby facilitating the transcription of target genes that play a role in odontoblast differentiation (PubMed:33548622, PubMed:35922041). Facilitates BMP4-induced translocation of SMAD1 to the nucleus and recruitment to the MSX1 gene promoter, thereby promotes the expression of the odontogenic regulator MSX1 in dental mesenchymal cells (PubMed:34995814). Also promotes odontoblast differentiation by facilitating the nuclear translocation of HDAC6 and subsequent repression of RUNX2 expression (PubMed:35922041). Inhibits osteoblast differentiation by inhibiting nuclear translocation of RUNX2 and therefore inhibition of RUNX2 target gene transcription (PubMed:35922041). In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones (PubMed:11493596). {ECO:0000250|UniProtKB:O95373, ECO:0000269|PubMed:11493596, ECO:0000269|PubMed:33548622, ECO:0000269|PubMed:34995814, ECO:0000269|PubMed:35922041}.
Molecular Weight:	119.5 kDa
UniProt:	Q9EPL8
Pathways:	Protein targeting to Nucleus

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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months