Datasheet for ABIN7553804

EPM2A Protein (AA 1-331) (His tag)

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Overview

Quantity:	1 mg
Target:	EPM2A
Protein Characteristics:	AA 1-331
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPM2A protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat EPM2A Protein expressed in mammalien cells.
Sequence:	MRFRFGVVVP PAVAGARPEL LVVGSRPELG RWEPRGAVRL RPAGTAAGDG ALALQEPGLW LGEVELAAEE AAQDGAEPGR VDTFWYKFLK REPGGELSWE GNGPHHDRCC TYNENNLVDG VYCLPIGHWI EATGHTNEMK HTTDFYFNIA GHQAMHYSRI LPNIWLGSCP RQVEHVTIKL KHELGITAVM NFQTEWDIVQ NSSGCNRYPE PMTPDTMIKL YREEGLAYIW MPTPDMSTEG RVQMLPQAVC LLHALLEKGH IVYVHCNAGV GRSTAAVCGW LQYVMGWNLR KVQYFLMAKR PAVYIDEEAL ARAQEDFFQK FGKVRSSVCS L **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:

Product Details

- 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:	EPM2A
Alternative Name:	EPM2A (EPM2A Products)
Background:	Laforin (EC 3.1.3.-) (EC 3.1.3.16) (EC 3.1.3.48) (Glucan phosphatase) (Glycogen phosphatase) (Lafora PTPase) (LAFPTPase),FUNCTION: Plays an important role in preventing glycogen hyperphosphorylation and the formation of insoluble aggregates, via its activity as glycogen phosphatase, and by promoting the ubiquitination of proteins involved in glycogen metabolism via its interaction with the E3 ubiquitin ligase NHLRC1/malin. Shows strong phosphatase activity towards complex carbohydrates in vitro, avoiding glycogen hyperphosphorylation which is associated with reduced branching and formation of insoluble aggregates (PubMed:16901901, PubMed:23922729, PubMed:26231210, PubMed:25538239, PubMed:25544560). Dephosphorylates phosphotyrosine and synthetic substrates, such as para-nitrophenylphosphate (pNPP), and has low activity with phosphoserine and phosphothreonine substrates (in vitro) (PubMed:11001928, PubMed:11220751, PubMed:11739371, PubMed:14532330, PubMed:16971387, PubMed:18617530, PubMed:22036712, PubMed:23922729, PubMed:14722920). Has been shown to dephosphorylate MAPT (By similarity). Forms a complex with NHLRC1/malin and HSP70,

Target Details

	which suppresses the cellular toxicity of misfolded proteins by promoting their degradation through the ubiquitin-proteasome system (UPS). Acts as a scaffold protein to facilitate PPP1R3C/PTG ubiquitination by NHLRC1/malin (PubMed:23922729). Also promotes proteasome-independent protein degradation through the macroautophagy pathway (PubMed:20453062). {ECO:0000250|UniProtKB:Q9WUA5, ECO:0000269|PubMed:11001928, ECO:0000269|PubMed:11220751, ECO:0000269|PubMed:11739371, ECO:0000269|PubMed:14532330, ECO:0000269|PubMed:14722920, ECO:0000269|PubMed:16901901, ECO:0000269|PubMed:16971387, ECO:0000269|PubMed:18070875, ECO:0000269|PubMed:18617530, ECO:0000269|PubMed:19036738, ECO:0000269|PubMed:20453062, ECO:0000269|PubMed:22036712, ECO:0000269|PubMed:23624058, ECO:0000269|PubMed:23922729, ECO:0000269|PubMed:25538239, ECO:0000269|PubMed:25544560, ECO:0000269|PubMed:26231210}., FUNCTION: [Isoform 2]: Does not bind to glycogen (PubMed:18617530). Lacks phosphatase activity and might function as a dominant-negative regulator for the phosphatase activity of isoform 1 and isoform 7 (PubMed:18617530, PubMed:22036712). {ECO:0000269|PubMed:18617530, ECO:0000269|PubMed:22036712}., FUNCTION: [Isoform 7]: Has phosphatase activity (in vitro). {ECO:0000269|PubMed:22036712}.
Molecular Weight:	37.2 kDa
UniProt:	O95278
Pathways:	Cellular Glucan Metabolic Process

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 Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months