Datasheet for ABIN7561530

NUDT3 Protein (AA 1-168) (His tag)

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Overview

Quantity:	1 mg
Target:	NUDT3
Protein Characteristics:	AA 1-168
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NUDT3 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Nudt3 Protein expressed in mammalian cells.
Sequence:	MMKLKSNQTR TYDGDGYKKR AACLCFRSES EEEVLLVSSS RHPDRWIVPG GGMEPEEEPS VAAVREVCEE AGVKGTLGRL VGIFENQERK HRTYVYVLIV TEVLEDWEDS VNIGRKREWF KIEDAIKVLQ CHKPVQASYF ETLRQGYPAN NGTPVVPTTY SSSVSGIR **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and

Product Details

	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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	NUDT3
Alternative Name:	Nudt3 (NUDT3 Products)
Background:	Diphosphoinositol polyphosphate phosphohydrolase 1 (DIPP-1) (muDIPP1) (EC 3.6.1.52) (Diadenosine hexaphosphate hydrolase) (Ap6A hydrolase) (EC 3.6.1.61) (Endopolyphosphatase) (EC 3.6.1.10) (Nucleoside diphosphate-linked moiety X motif 3) (Nudix motif 3) (m7GpppN-mRNA hydrolase) (EC 3.6.1.62) (m7GpppX diphosphatase) (EC 3.6.1.59),FUNCTION: Cleaves a beta-phosphate from the diphosphate groups in PP-InsP5 (diphosphoinositol pentakisphosphate) and [PP]2-InsP4 (bisdiphosphoinositol tetrakisphosphate), suggesting that it may play a role in signal transduction (PubMed:15212765). InsP6 (inositol hexakisphosphate) is not a substrate (By similarity). Also able to catalyze the hydrolysis of dinucleoside oligophosphates, with diadenosine 5',5'''-P1,P6-hexaphosphate (Ap6A) and diadenosine 5',5'''- P1,P5-pentaphosphate (Ap5A) being the preferred substrates (By similarity). The major reaction products are ADP and p4a from Ap6A and ADP and ATP from Ap5A (By similarity). Also able to hydrolyze 5- phosphoribose 1-diphosphate (By similarity). Acts as a negative regulator of the ERK1/2 pathway (PubMed:15212765). Acts as a decapping enzyme that can hydrolyze both monomethylated and unmethylated capped RNAs (PubMed:23353937). Hydrolyzes monomethylated capped RNA after both the alpha- and beta-phosphates generating m7GMP + ppRNA and m7GDP + pRNA (PubMed:23353937). Modulates the stability of a subset of mRNAs implicated in cell

Target Details

	motility (By similarity). Divalent cations zinc, magnesium and manganese determine its substrate specificity (By similarity). Exhibits diphosphoinositol polyphosphate phosphohydrolase in the presence of magnesium ions, diadenosine hexaphosphate hydrolase activity in the presence of manganese ions and endopolyphosphatase activity in the presence of zinc ions (By similarity). Plays an important role in limiting DNA damage and maintaining cell survival upon oxidative stress via its endopolyphosphatase activity (By similarity). {ECO:0000250|UniProtKB:O95989, ECO:0000269|PubMed:15212765, ECO:0000269|PubMed:23353937}.
Molecular Weight:	19.0 kDa
UniProt:	Q9JI46

Application Details

Application Notes:	We expect the protein to work for functional studies. 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.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

