Datasheet for ABIN7544819

TTC5 Protein (AA 1-440) (His tag)

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Overview

Quantity:	1 mg
Target:	TTC5
Protein Characteristics:	AA 1-440
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TTC5 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant TTC5 Protein expressed in mammalian cells.
Sequence:	MMADEEEEVK PILQKLQELV DQLYSFRDCY FETHSVEDAG RKQQDVQKEM EKTLQQMEEV VGSVQGKAQV LMLTGKALNV TPDYSPKAEE LLSKAVKLEP ELVEAWNQLG EVYWKKGDVA AAHTCFSGAL THCRNKVSLQ NLSMVLRQLR TDTEDEHSHH VMDSVRQAKL AVQMDVHDGR SWYILGNSYL SLYFSTGQNP KISQQALSAY AQAEKVDRKA SSNPDLHLNR ATLHKYEESY GEALEGFSRA AALDPAWPEP RQREQQLLEF LDRLTSLLES KGKVKTKKLQ SMLGSLRPAH LGPCSDGHYQ SASGQKVTLE LKPLSTLQPG VNSGAVILGK VVFSLTTEEK VPFTFGLVDS DGPCYAVMVY NIVQSWGVLI GDSVAIPEPN LRLHRIQHKG KDYSFSSVRV ETPLLLVVNG KPQGSSSQAV ATVASRPQCE **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.

Product Details

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 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:	TTC5
Alternative Name:	TTC5 (TTC5 Products)
Background:	Tetratricopeptide repeat protein 5 (TPR repeat protein 5) (Stress-responsive activator of p300) (Protein Strap),FUNCTION: Cofactor involved in the regulation of various cellular mechanisms such as actin regulation, autophagy, chromatin regulation and DNA repair (PubMed:18451878, PubMed:31727855). In non-stress conditions, interacts with cofactor JMY in the cytoplasm which prevents JMY's actin nucleation activity and ability to activate the Arp2/3 complex. Acts as a negative regulator of nutrient stress-induced autophagy by preventing JMY's interaction with MAP1LC3B, thereby preventing autophagosome formation (By similarity). Involves in tubulin autoregulation by promoting its degradation in response to excess soluble tubulin (PubMed:31727855). To do so, associates with the active ribosome near the ribosome exit tunnel and with nascent tubulin polypeptides early during their translation, triggering tubulin mRNA-targeted degradation (PubMed:31727855). Following DNA damage, phosphorylated by DNA damage responsive protein kinases ATM and CHEK2, leading to its nuclear accumulation and stability. Nuclear TTC5/STRAP promotes the assembly of a stress-responsive p53/TP53

Target Details

	coactivator complex, which includes the coactivators JMY and p300, thereby increasing p53/TP53-dependent transcription and apoptosis. Also recruits arginine methyltransferase PRMT5 to p53/TP53 when DNA is damaged, allowing PRMT5 to methylate p53/TP53. In DNA stress conditions, also prevents p53/TP53 degradation by E3 ubiquitin ligase MDM2 (By similarity). Upon heat-shock stress, forms a chromatin-associated complex with heat-shock factor 1 HSF1 and p300/EP300 to stimulate heat-shock-responsive transcription, thereby increasing cell survival (PubMed:18451878). Mitochondrial TTC5/STRAP interacts with ATP synthase subunit beta ATP5F1B which decreased ATP synthase activity and lowers mitochondrial ATP production, thereby regulating cellular respiration and mitochondrial-dependent apoptosis. Mitochondrial TTC5/STRAP also regulates p53/TP53-mediated apoptosis (By similarity). {ECO:0000250|UniProtKB:Q99LG4, ECO:0000269|PubMed:18451878, ECO:0000269|PubMed:31727855}.
Molecular Weight:	48.9 kDa
UniProt:	Q8N0Z6
Pathways:	Chromatin Binding

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