Datasheet for ABIN7561995

TTLL3 Protein (AA 1-927) (His tag)

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Overview

Quantity:	1 mg
Target:	TTLL3
Protein Characteristics:	AA 1-927
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TTLL3 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Ttll3 Protein expressed in mammalian cells.
Sequence:	MQGVSSALLL SAGQLGPGAA WYRQEGSSEC SWLRRSQPSE LRTNFSSRWP WPRNSESRRS ERLQWPGPAS AKPEVASCGD SRRDYSSLPA RHLSSARESS MPGALGTVNP QPVRTLVPPT LDEPLPDALR PPDDSLLLWR GLTKGPNHMG RLRNAKIHVE RAVKQKKIFM IHGRYPVIRC LLRQRGWVEK KMVHPPGTAL PAPQKDLDSS MLGDSDATED EDEEENEMFR ESQLLDLDGF LEFDDLDGIH ALMSRMVRNE TPYLIWTTRR DVLDCRFLSK DQMINHYARA GSFTTKVGLC LNLRNLPWFD EADADSFFPR CYRLGAEDDK KAFIEDFWLT AARNVLKLVV KLEEKSQSIS IQAREEEAPE DTQPKKQEKK LVTVSSDFVD EALSACQEHL SSIAHKDIDK DPNSPLYLSP DDWSQFLQRY YQIVHEGAEL RYLEVQVQRC EDILQQLQNV VPQLDMEGDR NIWIVKPGAK SRGRGIMCMN RLDEMLKLVD CNPMLMKDGK WIVQKYIERP LLIFGTKFDL RQWFLVTDWN PLTVWFYRDS YIRFSTQPFS LKNLDNSVHL CNNSIQRHLE ASCHRHPMLP PDNMWSSQRF QAHLQEVDAP KAWSSVIVPG MKAAVIHALQ TSQDNVQCRK ASFELYGADF VFGEDFQPWL IEINASPTMA PSTAVTARLC AGVQADTLRV VIDRRLDRSC DTGAFELIYK QPAVEVPQYV

Product Details

	GIRLLVEGST IKKPVPVGHR RTGVRSSLPH LLTQQGSGES KDSGSPTHRS ASRKNARAES LEHTEKPEPA AVASVSGKGK KAPFHFPSLH SKAWLPSPRV HRPQGRVLRL QHDQLVGSKA LSTTGKALMT LPTAKVLMSF PPHPDLKLAP SMLKPGKVGF ELCCTTWRVV LSGGIGEEGH RQRAAPRPSS APGKGLSSTE PCSKTET **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 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:	TTLL3
Alternative Name:	Ttll3 (TTLL3 Products)
Background:	Tubulin monoglycylase TTLL3 (EC 6.3.2.-) (Tubulin--tyrosine ligase-like protein 3),FUNCTION: Monoglycylase which modifies alpha- and beta-tubulin, adding a single glycine on the gamma-carboxyl groups of specific glutamate residues to generate monoglycine side chains within the C-terminal tail of tubulin (PubMed:19524510). Not involved in elongation step of the polyglycylation reaction (PubMed:19524510). Preferentially glycylates a beta-tail peptide over

Target Details

	the alpha-tail, although shifts its preference toward alpha-tail as beta-tail glutamylation increases (By similarity). Competes with polyglutamylases for modification site on beta-tubulin substrate, thereby creating an anticorrelation between glycylation and glutamylation reactions (PubMed:33414192). Together with TTLL8, mediates microtubule glycylation of primary and motile cilia, which is essential for their stability and maintenance (PubMed:23897886, PubMed:25180231). Involved in microtubule glycylation of primary cilia in colon which controls cell proliferation of epithelial cells and plays an essential role in colon cancer development (PubMed:25180231). Together with TTLL8, glycylates sperm flagella which regulates axonemal dynein motor activity, thereby controlling flagellar beat, directional sperm swimming and male fertility (PubMed:33414192). {ECO:0000250|UniProtKB:B2GUB3, ECO:0000269|PubMed:19524510, ECO:0000269|PubMed:23897886, ECO:0000269|PubMed:25180231, ECO:0000269|PubMed:33414192}.
Molecular Weight:	104.4 kDa
UniProt:	A4Q9E5

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