Datasheet for ABIN7555769

TIMELESS Protein (AA 1-1208) (His tag)

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Overview

Quantity:	1 mg
Target:	TIMELESS
Protein Characteristics:	AA 1-1208
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TIMELESS protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant TIMELESS Protein expressed in mammalian cells.
Sequence:	MDLHMMNCEL LATCSALGYL EGDTYHKEPD CLESVKDLIR YLRHEDETRD VRQQLGAAQI LQSDLLPILT QHHQDKPLFD AVIRLMVNLT QPALLCFGNL PKEPSFRHHF LQVLTYLQAY KEAFASEKAF GVLSETLYEL LQLGWEERQE EDNLLIERIL LLVRNILHVP ADLDQEKKID DDASAHDQLL WAIHLSGLDD LLLFLASSSA EEQWSLHVLE IVSLMFRDQN PEQLAGVGQG RLAQERSADF AELEVLRQRE MAEKKTRALQ RGNRHSRFGG SYIVQGLKSI GERDLIFHKG LHNLRNYSSD LGKQPKKVPK RRQAARELSI QRRSALNVRL FLRDFCSEFL ENCYNRLMGS VKDHLLREKA QQHDETYYMW ALAFFMAFNR AASFRPGLVS ETLSVRTFHF IEQNLTNYYE MMLTDRKEAA SWARRMHLAL KAYQELLATV NEMDISPDEA VRESSRIIKN NIFYVMEYRE LFLALFRKFD ERCQPRSFLR DLVETTHLFL KMLERFCRSR GNLVVQNKQK KRRKKKKKVL DQAIVSGNVP SSPEEVEAVW PALAEQLQCC AQNSELSMDS VVPFDAASEV PVEEQRAEAM VRIQDCLLAG QAPQALTLLR SAREVWPEGD VFGSQDISPE EEIQLLKQIL SAPLPRQQGP EERGAEEEEE EEEEEEELQ VVQVSEKEFN FLDYLKRFAC STVVRAYVLL LRSYQQNSAH

Product Details

	TNHCIVKMLH RLAHDLKMEA LLFQLSVFCL FNRLLSDPAA GAYKELVTFA KYILGKFFAL AAVNQKAFVE LLFWKNTAVV REMTEGYGSL DDRSSSRRAP TWSPEEEAHL RELYLANKDV EGQDVVEAIL AHLNTVPRTR KQIIHHLVQM GLADSVKDFQ RKGTHIVLWT GDQELELQRL FEEFRDSDDV LGHIMKNITA KRSRARIVDK LLALGLVAER RELYKKRQKK LASSILPNGA ESLKDFCQED LEEEENLPEE DSEEEEEGGS EAEQVQGSLV LSNENLGQSL HQEGFSIPLL WLQNCLIRAA DDREEDGCSQ AVPLVPLTEE NEEAMENEQF QQLLRKLGVR PPASGQETFW RIPAKLSPTQ LRRAAASLSQ PEEEQKLQPE LQPKVPGEQG SDEEHCKEHR AQALRALLLA HKKKAGLASP EEEDAVGKEP LKAAPKKRQL LDSDEEQEED EGRNRAPELG APGIQKKKRY QIEDDEDD **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:	TIMELESS
Alternative Name:	TIMELESS (TIMELESS Products)

Target Details

Background:	Protein timeless homolog (hTIM),FUNCTION: Plays an important role in the control of DNA replication, maintenance of replication fork stability, maintenance of genome stability throughout normal DNA replication, DNA repair and in the regulation of the circadian clock (PubMed:9856465, PubMed:17141802, PubMed:17296725, PubMed:23418588, PubMed:26344098, PubMed:23359676, PubMed:35585232, PubMed:31138685, PubMed:32705708). Required to stabilize replication forks during DNA replication by forming a complex with TIPIN: this complex regulates DNA replication processes under both normal and stress conditions, stabilizes replication forks and influences both CHEK1 phosphorylation and the intra-S phase checkpoint in response to genotoxic stress (PubMed:17141802, PubMed:17296725, PubMed:23359676, PubMed:35585232). During DNA replication, inhibits the CMG complex ATPase activity and activates DNA polymerases catalytic activities, coupling DNA unwinding and DNA synthesis (PubMed:23359676). TIMELESS promotes TIPIN nuclear localization (PubMed:17141802, PubMed:17296725). Plays a role in maintaining processive DNA replication past genomic guanine-rich DNA sequences that form G-quadruplex (G4) structures, possibly together with DDX1 (PubMed:32705708). Involved in cell survival after DNA damage or replication stress by promoting DNA repair (PubMed:17141802, PubMed:17296725, PubMed:26344098, PubMed:30356214). In response to double-strand breaks (DSBs), accumulates at DNA damage sites and promotes homologous recombination repair via its interaction with PARP1 (PubMed:26344098, PubMed:30356214, PubMed:31138685). May be specifically required for the ATR-CHEK1 pathway in the replication checkpoint induced by hydroxyurea or ultraviolet light (PubMed:15798197). Involved in the determination of period length and in the DNA damage-dependent phase advancing of the circadian clock (PubMed:23418588, PubMed:31138685). Negatively regulates CLOCK|NPAS2-ARTNL/BMAL1|ARTNL2/BMAL2-induced transactivation of PER1 possibly via translocation of PER1 into the nucleus (PubMed:9856465, PubMed:31138685). May play a role as destabilizer of the PER2-CRY2 complex (PubMed:31138685). May also play an important role in epithelial cell morphogenesis and formation of branching tubules (By similarity). {ECO:0000250|UniProtKB:Q9R1X4, ECO:0000269|PubMed:15798197, ECO:0000269|PubMed:17141802, ECO:0000269|PubMed:17296725, ECO:0000269|PubMed:23359676, ECO:0000269|PubMed:23418588, ECO:0000269|PubMed:26344098, ECO:0000269|PubMed:30356214, ECO:0000269|PubMed:31138685, ECO:0000269|PubMed:32705708, ECO:0000269|PubMed:35585232, ECO:0000269|PubMed:9856465}.
Molecular Weight:	138.7 kDa
UniProt:	Q9UNS1

Target Details

Pathways:	Protein targeting to Nucleus, Photoperiodism

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