Datasheet for ABIN7555907

USP20 Protein (AA 1-914) (His tag)

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Overview

Quantity:	1 mg
Target:	USP20
Protein Characteristics:	AA 1-914
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP20 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat USP20 Protein expressed in mammalien cells.
Sequence:	MGDSRDLCPH LDSIGEVTKE DLLLKSKGTC QSCGVTGPNL WACLQVACPY VGCGESFADH STIHAQAKKH NLTVNLTTFR LWCYACEKEV FLEQRLAAPL LGSSSKFSEQ DSPPPSHPLK AVPIAVADEG ESESEDDDLK PRGLTGMKNL GNSCYMNAAL QALSNCPPLT QFFLECGGLV RTDKKPALCK SYQKLVSEVW HKKRPSYVVP TSLSHGIKLV NPMFRGYAQQ DTQEFLRCLM DQLHEELKEP VVATVALTEA RDSDSSDTDE KREGDRSPSE DEFLSCDSSS DRGEGDGQGR GGGSSQAETE LLIPDEAGRA ISEKERMKDR KFSWGQQRTN SEQVDEDADV DTAMAALDDQ PAEAQPPSPR SSSPCRTPEP DNDAHLRSSS RPCSPVHHHE GHAKLSSSPP RASPVRMAPS YVLKKAQVLS AGSRRRKEQR YRSVISDIFD GSILSLVQCL TCDRVSTTVE TFQDLSLPIP GKEDLAKLHS AIYQNVPAKP GACGDSYAAQ GWLAFIVEYI RRFVVSCTPS WFWGPVVTLE DCLAAFFAAD ELKGDNMYSC ERCKKLRNGV KYCKVLRLPE ILCIHLKRFR HEVMYSFKIN SHVSFPLEGL DLRPFLAKEC TSQITTYDLL SVICHHGTAG SGHYIAYCQN VINGQWYEFD

Product Details

	DQYVTEVHET VVQNAEGYVL FYRKSSEEAM RERQQVVSLA AMREPSLLRF YVSREWLNKF NTFAEPGPIT NQTFLCSHGG IPPHKYHYID DLVVILPQNV WEHLYNRFGG GPAVNHLYVC SICQVEIEAL AKRRRIEIDT FIKLNKAFQA EESPGVIYCI SMQWFREWEA FVKGKDNEPP GPIDNSRIAQ VKGSGHVQLK QGADYGQISE ETWTYLNSLY GGGPEIAIRQ SVAQPLGPEN LHGEQKIEAE TRAV **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: • 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:	USP20
Alternative Name:	USP20 (USP20 Products)
Background:	Ubiquitin carboxyl-terminal hydrolase 20 (EC 3.4.19.12) (Deubiquitinating enzyme 20) (Ubiquitin thioesterase 20) (Ubiquitin-specific-processing protease 20) (VHL-interacting deubiquitinating enzyme 2) (hVDU2),FUNCTION: Deubiquitinating enzyme that plays a role in many cellular processes including autophagy, cellular antiviral response or membrane protein biogenesis (PubMed:27801882, PubMed:29487085). Attenuates TLR4-mediated NF-kappa-B signaling by cooperating with beta-arrestin-2/ARRB2 and inhibiting TRAF6 autoubiquitination

Target Details

	(PubMed:26839314). Promotes cellular antiviral responses by deconjugating 'Lys-33' and 'Lys-48'-linked ubiquitination of STING1 leading to its stabilization (PubMed:27801882). Plays an essential role in autophagy induction by regulating the ULK1 stability through deubiquitination of ULK1 (PubMed:29487085). Acts as a positive regulator for NF-kappa-B activation by TNF-alpha through deubiquitinating 'Lys-48'-linked polyubiquitination of SQSTM1, leading to its increased stability (PubMed:32354117). Acts as a regulator of G-protein coupled receptor (GPCR) signaling by mediating the deubiquitination beta-2 adrenergic receptor (ADRB2)(PubMed:19424180). Plays a central role in ADRB2 recycling and resensitization after prolonged agonist stimulation by constitutively binding ADRB2, mediating deubiquitination of ADRB2 and inhibiting lysosomal trafficking of ADRB2. Upon dissociation, it is probably transferred to the translocated beta-arrestins, possibly leading to beta-arrestins deubiquitination and disengagement from ADRB2 (PubMed:19424180). This suggests the existence of a dynamic exchange between the ADRB2 and beta-arrestins. Deubiquitinates DIO2, thereby regulating thyroid hormone regulation. Deubiquitinates HIF1A, leading to stabilize HIF1A and enhance HIF1A-mediated activity (PubMed:15776016). Deubiquitinates MCL1, a pivotal member of the anti-apoptotic Bcl-2 protein family to regulate its stability (PubMed:35063767). Within the endoplasmic reticulum, participates with USP33 in the rescue of post-translationally targeted membrane proteins that are inappropriately ubiquitinated by the cytosolic protein quality control in the cytosol (PubMed:33792613). {ECO:0000269|PubMed:12056827, ECO:0000269|PubMed:12865408, ECO:0000269|PubMed:15776016, ECO:0000269|PubMed:19424180, ECO:0000269|PubMed:26839314, ECO:0000269|PubMed:27801882, ECO:0000269|PubMed:29487085, ECO:0000269|PubMed:32354117, ECO:0000269|PubMed:33792613, ECO:0000269|PubMed:35063767}.
Molecular Weight:	102.0 kDa
UniProt:	Q9Y2K6
Pathways:	Regulation of G-Protein Coupled Receptor Protein Signaling

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