Datasheet for ABIN3095952

KAP1 Protein (AA 2-835) (His tag)

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Overview

Quantity:	1 mg
Target:	KAP1 (TRIM28)
Protein Characteristics:	AA 2-835
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KAP1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:	AASAAAASAA AASAASGSPG PGEGSAGGEK RSTAPSAAAS ASASAAASSP AGGGAEALEL LEHCGVCRER LRPEREPRLL PCLHSACSAC LGPAAPAAAN SSGDGGAAGD GTVVDCPVCK QQCFSKDIVE NYFMRDSGSK AATDAQDANQ CCTSCEDNAP ATSYCVECSE PLCETCVEAH QRVKYTKDHT VRSTGPAKSR DGERTVYCNV HKHEPLVLFC ESCDTLTCRD CQLNAHKDHQ YQFLEDAVRN QRKLLASLVK RLGDKHATLQ KSTKEVRSSI RQVSDVQKRV QVDVKMAILQ IMKELNKRGR VLVNDAQKVT EGQQERLERQ HWTMTKIQKH QEHILRFASW ALESDNNTAL LLSKKLIYFQ LHRALKMIVD PVEPHGEMKF QWDLNAWTKS AEAFGKIVAE RPGTNSTGPA PMAPPRAPGP LSKQGSGSSQ PMEVQEGYGF GSGDDPYSSA EPHVSGVKRS RSGEGEVSGL MRKVPRVSLE RLDLDLTADS QPPVFKVFPG STTEDYNLIV IERGAAAAAT GQPGTAPAGT PGAPPLAGMA IVKEEETEAA IGAPPTATEG PETKPVLMAL AEGPGAEGPR LASPSGSTSS GLEVVAPEGT SAPGGGPGTL DDSATICRVC QKPGDLVMCN QCEFCFHLDC HLPALQDVPG EEWSCSLCHV LPDLKEEDGS LSLDGADSTG VVAKLSPANQ RKCERVLLAL FCHEPCRPLH

	QLATDSTFSL DQPGGTLDLT LIRARLQEKL SPPYSSPQEF AQDVGRMFKQ FNKLTEDKAD VQSIIGLQRF FETRMNEAFG DTKFSAVLVE PPPMSLPGAG LSSQELSGGP GDGP **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human TRIM28 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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 will ensure that you receive a correctly folded protein. 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.

Product Details

Grade:	Crystallography grade

Target Details

Target:	KAP1 (TRIM28)
Alternative Name:	TRIM28 (TRIM28 Products)
Background:	Nuclear corepressor for KRAB domain-containing zinc finger proteins (KRAB-ZFPs). Mediates gene silencing by recruiting CHD3, a subunit of the nucleosome remodeling and deacetylation (NuRD) complex, and SETDB1 (which specifically methylates histone H3 at 'Lys-9' (H3K9me)) to the promoter regions of KRAB target genes. Enhances transcriptional repression by coordinating the increase in H3K9me, the decrease in histone H3 'Lys-9 and 'Lys-14' acetylation (H3K9ac and H3K14ac, respectively) and the disposition of HP1 proteins to silence gene expression. Recruitment of SETDB1 induces heterochromatinization. May play a role as a coactivator for CEBPB and NR3C1 in the transcriptional activation of ORM1. Also corepressor for ERBB4. Inhibits E2F1 activity by stimulating E2F1-HDAC1 complex formation and inhibiting E2F1 acetylation. May serve as a partial backup to prevent E2F1-mediated apoptosis in the absence of RB1. Important regulator of CDKN1A/p21(CIP1). Has E3 SUMO-protein ligase activity toward itself via its PHD-type zinc finger. Also specifically sumoylates IRF7, thereby inhibiting its transactivation activity. Ubiquitinates p53/TP53 leading to its proteosomal degradation, the function is enhanced by MAGEC2 and MAGEA2, and possibly MAGEA3 and MAGEA6. Mediates the nuclear localization of KOX1, ZNF268 and ZNF300 transcription factors. In association with isoform 2 of ZFP90, is required for the transcriptional repressor activity of FOXP3 and the suppressive function of regulatory T-cells (Treg) (PubMed:23543754). Probably forms a corepressor complex required for activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells (PubMed:24623306). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). {ECO:0000269|PubMed:10347202, ECO:0000269|PubMed:11959841, ECO:0000269|PubMed:15882967, ECO:0000269|PubMed:16107876, ECO:0000269|PubMed:16862143, ECO:0000269|PubMed:17079232, ECO:0000269|PubMed:17178852, ECO:0000269|PubMed:17704056, ECO:0000269|PubMed:17942393, ECO:0000269|PubMed:18060868, ECO:0000269|PubMed:18082607, ECO:0000269|PubMed:20424263, ECO:0000269|PubMed:20858735, ECO:0000269|PubMed:20864041, ECO:0000269|PubMed:21940674,

Target Details

	ECO:0000269|PubMed:23543754, ECO:0000269|PubMed:23665872, ECO:0000269|PubMed:24623306, ECO:0000269|PubMed:8769649, ECO:0000269|PubMed:9016654}.
Molecular Weight:	89.4 kDa Including tag.
UniProt:	Q13263
Pathways:	Hedgehog Signaling, Positive Regulation of Response to DNA Damage Stimulus

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 gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

