Datasheet for ABIN7564678

Raptor Protein (AA 1-1335) (His tag)

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Overview

Quantity:	1 mg
Target:	Raptor (RPTOR)
Protein Characteristics:	AA 1-1335
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Raptor protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Rptor Protein expressed in mammalien cells.
Sequence:	MESEMLQSPL MGLGEEDEAD LTDWNLPLAF MKKRHCEKIE GSKSLAQSWR MKDRMKTVSV ALVLCLNVGV DPPDVVKTTP CARLECWIDP LSMGPQKALE TIGANLQKQY ENWQPRARYK QSLDPTVDEV KKLCTSLRRN AKEERVLFHY NGHGVPRPTV NGEVWVFNKN YTQYIPLSIY DLQTWMGSPS IFVYDCSNAG LIVKSFKQFA LQREQELEVA AINPNHPLAQ MPLPPSMKNC IQLAACEAHE LLPMIPDLPA DLFTSCLTTP IKIALRWFCM QKCVSLVPGV TLDLIEKIPG RLNDRRTPLG ELNWIFTAIT DTIAWNVLPR DLFQKLFRQD LLVASLFRNF LLAERIMRSY NCTPVSSPRL PPTYMHAMWQ AWDLAVDICL SQLPTIIEEG TAFRHSPFFA EQLTAFQVWL TMGVENRSPP EQLPIVLQVL LSQVHRLRAL DLLGRFLDLG PWAVSLALSV GIFPYVLKLL QSSARELRPL LVFIWAKILA VDSSCQADLV KDNGHKYFLS VLADPYMPAE HRTMTAFILA VIVNSYTTGQ EACLQGNLIA ICLEQLSDPH PLLRQWVAIC LGRIWQNFDS ARWCGVRDSA HEKLYSLLSD PIPEVRCAAV FALGTFVGNS AERTDHSTTI DHNVAMMLAQ LINDGSPMVR

Product Details

	KELVVALSHL VVQYESNFCT VALQFMEEEK NYPLPSPAAT EGGSLTPVRD SPCTPRLRSV SSYGNIRAVT TARNLNKSLQ NLSLTEESGS SVAFSPGNLS TSSSASSTLG SPENEEYILS FETIDKMRRV SSYSALNSLI GVSFNSVYTQ IWRVLLHLAA DPYPDVSDLA MKVLNSIAYK ATVNARPQRI LDTSSLTQSA PASPTNKGMH MHQVGGSPPA SSTSSCSLTN DVAKQTVSRD LPSSRPGTAG PTGAQYTPHS HQFPRTRKMF DKGPDQTTDD ADDAAGHKSF ICASMQTGFC DWSARYFAQA VMKIPEEHDL ESQIRKEREW RFLRNTRVRK QAQQVIQKGI TRLDDQIFLN RNPGVPSVVK FHPFTPCIAV ADKDSICFWD WEKGEKLDYF HNGNPRYTRV TAMEYLNGQD CSLLLTATDD GAIRVWKNFA DLEKNPEMVT AWQGLSDMLP TTRGAGMVVD WEQETGLLMS SGDVRIVRIW DTDRETKVQD IPTGADSCVT SLSCDSHRSL IVAGLGDGSI RVYDRRMALS ECRVMTYREH TAWVVKAYLQ KHPEGHIVSV SVNGDVRFFD PRMPESVNVM QIVKGLTALD IHPQANLIAC GSMNQFTAIY NGNGELINNI KYYDGFMGQR VGAISCLAFH PHWPHLAVGS NDYYISVYSV EKRVR **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:	Raptor (RPTOR)

Target Details

Alternative Name:	Rptor (RPTOR Products)
Background:	Regulatory-associated protein of mTOR (Raptor) (p150 target of rapamycin (TOR)-scaffold protein),FUNCTION: Component of the mechanistic target of rapamycin complex 1 (mTORC1), an evolutionarily conserved central nutrient sensor that stimulates anabolic reactions and macromolecule biosynthesis to promote cellular biomass generation and growth (PubMed:27879318, PubMed:32912901). In response to nutrients, growth factors or amino acids, mTORC1 is recruited to the lysosome membrane and promotes protein, lipid and nucleotide synthesis by phosphorylating several substrates, such as ribosomal protein S6 kinase (RPS6KB1 and RPS6KB2) and EIF4EBP1 (4E-BP1) (PubMed:27879318). In the same time, it inhibits catabolic pathways by phosphorylating the autophagy initiation components ULK1 and ATG13, as well as transcription factor TFEB, a master regulators of lysosomal biogenesis and autophagy (By similarity). The mTORC1 complex is inhibited in response to starvation and amino acid depletion (By similarity). Within the mTORC1 complex, RPTOR acts both as a molecular adapter, which (1) mediates recruitment of mTORC1 to lysosomal membranes via interaction with small GTPases Rag (RagA/RRAGA, RagB/RRAGB, RagC/RRAGC and/or RagD/RRAGD), and a (2) substrate-specific adapter, which promotes substrate specificity by binding to TOS motif-containing proteins and direct them towards the active site of the MTOR kinase domain for phosphorylation (By similarity). mTORC1 complex regulates many cellular processes, such as odontoblast and osteoclast differentiation or neuronal transmission (PubMed:27879318, PubMed:30984011, PubMed:33495318). mTORC1 complex in excitatory neuronal transmission is required for the prosocial behavior induced by the psychoactive substance lysergic acid diethylamide (LSD) (PubMed:33495318). {ECO:0000250|UniProtKB:Q8N122, ECO:0000269|PubMed:27879318, ECO:0000269|PubMed:30984011, ECO:0000269|PubMed:32912901, ECO:0000269|PubMed:33495318}.
Molecular Weight:	149.5 kDa
UniProt:	Q8K4Q0
Pathways:	PI3K-Akt Signaling, RTK Signaling, AMPK Signaling, Regulation of Muscle Cell Differentiation, Regulation of Cell Size, Skeletal Muscle Fiber Development, Autophagy, BCR Signaling, Warburg Effect

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

Application Details

	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

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