Datasheet for ABIN3137506

AKT3 Protein (AA 2-479) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	AKT3
Protein Characteristics:	AA 2-479
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AKT3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	SDVTIVKEGW VQKRGEYIKN WRPRYFLLKT DGSFIGYKEK PQDVDLPYPL NNFSVAKCQL MKTERPKPNT FIIRCLQWTT VIERTFHVDT PEEREEWTEA IQAVADRLQR QEEERMNCSP TSQIDNIGEE EMDASTTHHK RKTMNDFDYL KLLGKGTFGK VILVREKASG KYYAMKILKK EVIIAKDEVA HTLTESRVLK NTRHPFLTSL KYSFQTKDRL CFVMEYVNGG ELFFHLSRER VFSEDRTRFY GAEIVSALDY LHSGKIVYRD LKLENLMLDK DGHIKITDFG LCKEGITDAA TMKTFCGTPE YLAPEVLEDN DYGRAVDWWG LGVVMYEMMC GRLPFYNQDH EKLFELILME DIKFPRTLSS DAKSLLSGLL IKDPNKRLGG GPDDAKEIMR HSFFSGVNWQ DVYDKKLVPP FKPQVTSETD TRYFDEEFTA QTITITPPEK YDDDGMDGMD NERRPHFPQF SYSASGRE **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. • Mouse Akt3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to

Product Details

	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.
Grade:	Crystallography grade

Target Details

Target:	AKT3
Alternative Name:	Akt3 (AKT3 Products)

Target Details

Background:	AKT3 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis. This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates. Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported. AKT3 is the least studied AKT isoform. It plays an important role in brain development and is crucial for the viability of malignant glioma cells. AKT3 isoform may also be the key molecule in up-regulation and down-regulation of MMP13 via IL13. Required for the coordination of mitochondrial biogenesis with growth factor-induced increases in cellular energy demands. Down-regulation by RNA interference reduces the expression of the phosphorylated form of BAD, resulting in the induction of caspase-dependent apoptosis. {ECO:0000269|PubMed:15713641, ECO:0000269|PubMed:21159799}.
Molecular Weight:	56.5 kDa Including tag.
UniProt:	Q9WUA6
Pathways:	PI3K-Akt Signaling, RTK Signaling, TLR Signaling, Hepatitis C, VEGF 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 gurantee though.
Comment:	Protein has not been tested for activity yet. 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.

Handling

Expiry Date:	Unlimited (if stored properly)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process