

Datasheet for ABIN3136985
RAF1 Protein (AA 1-648) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	RAF1
Protein Characteristics:	AA 1-648
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAF1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MEHIQGAWKT ISNGFGLKDA VFDGSSCISP TIVQQFGYQR RASDDGKLT D SSKTSNTIRV FLPNKQRTVV NVRNGMSLHD CLMKALKVRG LQPECCAVFR LLQEHKGKKA RLDWNTDAAS LIGEELQVDF LDHVPLTTHN FARKTFLKLA FCDICQKFL NGFRCQTCGY KFHEHCSTKV PTMCVDWSNI RQLLLFPNST VGDSGVPAPP SFPMMRMRES VSRMPASSQH RYSTPHAFTF NTSSPSSEGS LSQRQRSTST PNVH MVSTTL HVDSRMIEDA IRSHSESASP SALSSSPNNL SPTGWSQPKT PVPAQRERAP GSGTQEKNKI RPRGQRDSSY YWEIEASEVM LSTRIGSGSF GTVYKGKWHG DVAVKILKV DPTPEQLQAF RNEVAVLRKT RHVNILLFMG YMTKDNLAIV TQWCEGSSLY KHLHVQETKF QMFQLIDIAR QTAQGMDYLH AKNIIHRDMK SNNIFLHEGL TVKIGDFGLA TVKSRWWSGSQ QVEQPTGSVL WMAPEVIRMQ DDNPFQSD VYSYGIVLYE LMAGELPYAH INN RDQIIFM VGRGYASPD LSRLYKNCPKA MKRLVADCVK KVKEERPLFP QILSSIELLQ HSLPKINRSA SEPSLHRAAH TEDINACTLT TSPRLPVF
-----------	--

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 Raf1 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 receipt 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:	RAF1
Alternative Name:	Raf1 (RAF1 Products)
Background:	<p>Serine/threonine-protein kinase that acts as a regulatory link between the membrane-associated Ras GTPases and the MAPK/ERK cascade, and this critical regulatory link functions as a switch determining cell fate decisions including proliferation, differentiation, apoptosis, survival and oncogenic transformation. RAF1 activation initiates a mitogen-activated protein kinase (MAPK) cascade that comprises a sequential phosphorylation of the dual-specific MAPK kinases (MAP2K1/MEK1 and MAP2K2/MEK2) and the extracellular signal-regulated kinases (MAPK3/ERK1 and MAPK1/ERK2). The phosphorylated form of RAF1 (on residues Ser-338 and Ser-339, by PAK1) phosphorylates BAD/Bcl2-antagonist of cell death at 'Ser-75'. Phosphorylates adenylyl cyclases: ADCY2, ADCY5 and ADCY6, resulting in their activation. Phosphorylates PPP1R12A resulting in inhibition of the phosphatase activity. Phosphorylates TNNT2/cardiac muscle troponin T. Can promote NF-kB activation and inhibit signal transducers involved in motility (ROCK2), apoptosis (MAP3K5/ASK1 and STK3/MST2), proliferation and angiogenesis (RB1). Can protect cells from apoptosis also by translocating to the mitochondria where it binds BCL2 and displaces BAD/Bcl2-antagonist of cell death. Plays a role in the oncogenic transformation of epithelial cells via repression of the TJ protein, occludin (OCLN) by inducing the up-regulation of a transcriptional repressor SNAI2/SLUG, which induces down-regulation of OCLN. Restricts caspase activation in response to selected stimuli, notably Fas stimulation, pathogen-mediated macrophage apoptosis, and erythroid differentiation (By similarity). Regulates Rho signaling and migration, and is required for normal wound healing. {ECO:0000250, ECO:0000269 PubMed:15753127}.</p>
Molecular Weight:	73.9 kDa Including tag.
UniProt:	Q99N57
Pathways:	MAPK Signaling , RTK Signaling , Fc-epsilon Receptor Signaling Pathway , Neurotrophin Signaling Pathway , cAMP Metabolic Process , Stem Cell Maintenance , Hepatitis C , Autophagy , Signaling of Hepatocyte Growth Factor Receptor , VEGF Signaling , BCR 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.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the

Application Details

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)

Images



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