

Datasheet for ABIN3137630

MSK2 Protein (AA 1-773) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	MSK2 (RPS6KA4)
Protein Characteristics:	AA 1-773
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MSK2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MGDEDEDEGC AVELQITEAN LTGHEEKVSV ENFALLKVLG TGAYGKVFLV RKTGGHDAGK LYAMKVLRLKA ALVQRAKTQE HTRTERSVLE LVRQAPFLVT LHAFQTDAL LHLILDYVSG GEMFTHLYQR QYFKEAEVRV YGGEIVLAL HLHKLGIYR DLKLENVLLD SEGHIVLTDF GLSKEFLTEE KERTFSFCGT IEYMAPEIIR SKAGHGKAVD WWSLGILLFE LLTGASPFTL EGERNQAQEV SRRILKCSPP FPLRIGPVAQ DLLQRLCKD PKKRLGAGPQ GAQEVKSHPF FQGLDWVALA ARKIPAPFRP QIRSELDVGN FAEFTRLEP VYSPAGSPPP GDPRIFQGY FVAPSILFDH NNAVMADVLQ APGAGYRPGR AAVARSAMMQ DSPFFQYEL DLREPALGQG SFSVCRRRCRQ RQSGQEFQV ILSRRLEENT QREVAALRLC QSHPNVNLH EVLHDQLHTY LVLELLRGGE LLEHIRKKRL FSESEASQIL RSLVSAVSFM HEEAGVVHRD LKPENILYAD DTPGAPVKII DFGFARLRPQ SPAEPMQTPC FTLQYAAPEL LAQQGYDESC DLWSLGVILY MMLSGQVPFQ GASGQGGQSQ AAEIMCKIRE GRFSLDGEAW QGVSEEAKEL VRGLLTVDPA KRLKLEGLRS SSWLQDGSAR SSPPLRTPDV LESSGPAVRS GLNATFMAFN RGKREGFFLK
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SVENAPLAKR RKQKLRSAAA SRRGSPVPAS SGRLPASAAK GTTRRANGPL SPS

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 Rps6ka4 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.

Product Details

Grade: Crystallography grade

Target Details

Target: MSK2 (RPS6KA4)

Alternative Name: Rps6ka4 ([RPS6KA4 Products](#))

Background: Serine/threonine-protein kinase that is required for the mitogen or stress-induced phosphorylation of the transcription factors CREB1 and ATF1 and for the regulation of the transcription factor RELA, and that contributes to gene activation by histone phosphorylation and functions in the regulation of inflammatory genes. Phosphorylates CREB1 and ATF1 in response to mitogenic or stress stimuli such as UV-C irradiation, epidermal growth factor (EGF) and anisomycin. Plays an essential role in the control of RELA transcriptional activity in response to TNF. Phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and EGF, which results in the transcriptional activation of several immediate early genes, including proto-oncogenes c-fos/FOS and c-jun/JUN. May also phosphorylate 'Ser-28' of histone H3. Mediates the mitogen- and stress-induced phosphorylation of high mobility group protein 1 (HMG1/HMG14). In lipopolysaccharide-stimulated primary macrophages, acts downstream of the Toll-like receptor TLR4 to limit the production of pro-inflammatory cytokines. Functions probably by inducing transcription of the MAP kinase phosphatase DUSP1 and the anti-inflammatory cytokine interleukin 10 (IL10), via CREB1 and ATF1 transcription factors (By similarity). {ECO:0000250, ECO:0000269|PubMed:11909979, ECO:0000269|PubMed:16517600, ECO:0000269|PubMed:18690222}.

Molecular Weight: 86.6 kDa Including tag.

UniProt: [Q9Z2B9](#)

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 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