

Datasheet for ABIN3116236

VRK2 Protein (AA 1-508) (rho-1D4 tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	VRK2
Protein Characteristics:	AA 1-508
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This VRK2 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: MPPKRNEKYK LPIPFPEGKV LDDMEGNQWV LGKKIGSGGF GLIYLAFTN KPEKDARHVV
KVEYQENGPL FSELKFYQRV AKKDCIKKWI ERKQLDYLGI PLFYGSGLTE FKGRSYRFMV
MERLGIDLQK ISGQNGTFKK STVLQLGIRM LDVLEYIHEN EYVHGDIKAA NLLGYKNPD
QVYLADYGLS YRYCPNGNHK QYQENPRKGH NGTIEFTSLD AHKGVALSRR SDVEILGYCM
LRWLCGKLPW EQNLKDPVAV QTAKTNLLDE LPQSVLKWAP SGSSCCEIAQ FLVCAHSLAY
DEKPNYQALK KILNPHGIPL GPLDFSTKGQ SINVHTPNSQ KVDSQKAATK QVNKAHNRLI
EKKVHSERSA ESCATWKVQK EEKLI GLMNN EAAQESTRRR QKYQESQEPL NEVNSFPQKI
SYTQFPNSFY EPHQDFTSPD IFKKSRSPSW YKYTSTVSTG ITDLESSTGL WPTISQFTLS
EETNADVYYY RIIPVLLML VFLALFFL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Product Details

Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human VRK2 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). <p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p>
Purification:	<p>Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none">1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.3. 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:	VRK2
Alternative Name:	VRK2 (VRK2 Products)
Background:	<p>Serine/threonine kinase that regulates several signal transduction pathways. Isoform 1 modulates the stress response to hypoxia and cytokines, such as interleukin-1 beta (IL1B) and this is dependent on its interaction with MAPK8IP1, which assembles mitogen-activated protein kinase (MAPK) complexes. Inhibition of signal transmission mediated by the assembly of MAPK8IP1-MAPK complexes reduces JNK phosphorylation and JUN-dependent transcription. Phosphorylates 'Thr-18' of p53/TP53, histone H3, and may also phosphorylate MAPK8IP1. Phosphorylates BANF1 and disrupts its ability to bind DNA and reduces its binding to LEM domain-containing proteins. Downregulates the transactivation of transcription induced by ERBB2, HRAS, BRAF, and MEK1. Blocks the phosphorylation of ERK in response to ERBB2 and HRAS. Can also phosphorylate the following substrates that are commonly used to establish in vitro kinase activity: casein, MBP and histone H2B, but it is not sure that this is physiologically relevant., Isoform 2 phosphorylates 'Thr-18' of p53/TP53, as well as histone H3. Reduces p53/TP53 ubiquitination by MDM2, promotes p53/TP53 acetylation by EP300 and thereby increases p53/TP53 stability and activity.</p>
Molecular Weight:	59.3 kDa Including tag.
UniProt:	Q86Y07

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:	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

Handling Advice:	Avoid repeated freeze-thaw cycles.
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Storage:	-80 °C
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Storage Comment:	Store at -80°C.
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Expiry Date:	Unlimited (if stored properly)
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Images



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