

Datasheet for ABIN3135306

MERTK Protein (AA 19-994) (rho-1D4 tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	MERTK
Protein Characteristics:	AA 19-994
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MERTK protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	GGTAEKWEET ELDQLFSGPL PGRLPVNHPR FSAPHSSRDQ LPPPQTGRSH PAHTAAPQVT STASKLLPPV AFNHTIGHIV LSEHKNVKFN CSINIPNTYQ ETAGISWWKD GKELLGAHHS ITQFYPDEEG VSIIALFSIA SVQRSNDSY FCKMKVNNRE IVSDPIYVEV QGLPYFIKQP ESVNVTRNTA FNLTQAVGP PEPVNIFWVQ NSSRVNEKPE RSPSVLTVPG LTETAVFSCE AHNDKGLTVS KGVHINIKVI PSPPTEVHIL NSTAHSILVS WVPFGDGYSP LQNCISIQVKE ADRLSNGSVM VFNTSASPHL YEIQQQLQALA NYSIAVSCRN EIGWSAVSPW ILASTTEGAP SVAPLNITVF LNESNNILDI RWTKPPIKRQ DGELVGYRIS HVWESAGTYK ELSEEVSQNG SWAQIPVQIH NATCTVRIAA ITKGGIGPFS EPVNIIPPEH SKVDYAPSST PAPGNTDSMF IILGCFCGFI LIGLILCISL ALRRRVQETK FGGAFFSEEDS QLVVNYRAKK SFCRRAIELT LQSLGVSEEL QNKLEDVVID RNLLVLGKVL GEGEFGSVME GNLKQEDGTS QKVAVKTMKL DNFSQREIEE FLSEAACMKD FNHPNVIRLL GVCIELSSQG IPKPMVILPF MKYGDHTFL LYSRLNTGPK YIHLQTLLKF MMDIAQGMET LSNRNFLHRD LAARNCMRLD DMTVCVADFG LSKKIYSGDY
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YRQGRIAKMP VKWIAIESLA DRVYTSKSDV WAFGVTMWEI TTRGMTYPYPG VQNHEMYDYL
LHGHRLKQPE DCLDELYDIM YSCWSADPLD RPTFSVLRLQ LEKLSESLPD AQDKESIYI
NTQLLESCEG IANGPSLTGL DMNIDPDSII ASCTPGAASV VVTAEVHENN LREERYILNG
GNEEWEDVSS TPFAAVTPEK DGVLPEDRLT KNGVSWSHHS TLPLGSPSPD ELLFVDDSLE
DSEVLM

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 Mertk 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:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractionated 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

Product Details

through size exclusion chromatograph. 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: MERTK

Alternative Name: MerTK ([MERTK Products](#))

Background: Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding to several ligands including LGALS3, TUB, TULP1 or GAS6. Regulates many physiological processes including cell survival, migration, differentiation, and phagocytosis of apoptotic cells (efferocytosis). Ligand binding at the cell surface induces autophosphorylation of MERTK on its intracellular domain that provides docking sites for downstream signaling molecules. Following activation by ligand, interacts with GRB2 or PLCG2 and induces phosphorylation of MAPK1, MAPK2, FAK/PTK2 or RAC1. MERTK signaling plays a role in various processes such as macrophage clearance of apoptotic cells, platelet aggregation, cytoskeleton reorganization and engulfment. Functions in the retinal pigment epithelium (RPE) as a regulator of rod outer segments fragments phagocytosis. Plays also an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response by activating STAT1, which selectively induces production of suppressors of cytokine signaling SOCS1 and SOCS3. {ECO:0000269|PubMed:19117932, ECO:0000269|PubMed:20363878}.

Molecular Weight: 109.4 kDa Including tag.

UniProt: [Q60805](#)

Pathways: [RTK 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.

Application Details

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