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Datasheet for ABIN3114356  
**MST1R Protein (AA 310-1400) (rho-1D4 tag)**

### Overview

Quantity:	1 mg
Target:	MST1R
Protein Characteristics:	AA 310-1400
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MST1R protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence: GAPEGGQPYP VLRVAHSAPV GAQLATELSI AEGQEVLFGV FVTGKDGGPG VGPNSVVCAP  
PIDLLDTLID EGVERCCESP VHPGLRRGLD FFQSPSFCPN PPGLEALSPN TSCRHFPLLV  
SSSFSRVDLF NGLLGPVQVT ALYVTRLDNV TVAHMGTMDS RILQVELVRS LNYLLYVSNF  
SLGDSGQPQV RDVSRLGDHL LFASGDQVFQ VPIQGPGCRH FLTCGRCLRA WHFMGCGWCG  
NMCGQQKECP GSWQQDHCPP KLTEFHPSHG PLRGSTRRTL CGSNFYLHPS GLVPEGTHQV  
TVGQSPCRPL PKDSSKLRPV PRKDFVEEFE CELEPLGTQA VGPTNVSLTV TNMPPGKHFR  
VDGTSVLRGF SFMEPVLIIV QPLFGPRAGG TCLTLEGQSL SVGTSRAVLV NGTECLLARV  
SEGQLLCATP PGATVASVPL SLQVGAQVP GSWTFQYRED PVVLSISPNC GYINSHITIC  
GQHLSAWHL VLSFHDGLRA VESRCERQLP EQQLCRLPEY VVRDPQGWVA GNLSARGDGA  
AGFTLPGFRF LPPPHPPSAN LVPLKPEEHA IKFEYIGLGA VADCVGINVT VGGESCQHEF  
RGDMVVCPLP PSLQLGQDGA PLQVCVDGEC HILGRVVRPG PDGVPQSTLL GILLPLLLLV  
AALATALVFS YWVRRKQLVL PPNLNDLASL DQTAGATPLP ILYSGSDYRS GLALPAIDGL

DSTTCVHGAS FSDSEDESCV PLLRKESIQI RDLDSALLAE VKDVLIPHER VVTHSDRVIG  
KGFHGVVYHG EYIDQANRI QCAIKSLSRI TEMQQVEAFL REGLLMRGLN HPNVLALIGI  
MLPPEGLPHV LLPYMCHGDL LQFIRSPQRN PTVKDLISFG LQVARSMEYL AEQKFVHRDL  
AARNCMLDES FTVKVADFGL ARDILDREYY SVQQHRHARL PVKWMALLES QTYRFTTKSD  
VWSFGVLLWE LLTRGAPPYR HIDPFDLTHF LAQGRRLPQP EYCPDSLYQV MQQCWEADPA  
VRPTFRVLVG EVEQIVSALL GDHYVQLPAT YMNLGPSTSH EMNVRPEQPQ FSPMPGNVRR  
PRPLSEPPRP T

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human MST1R 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.

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### 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

## Product Details

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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 chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Sterility: 0.22 µm filtered

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Endotoxin Level: Protein is endotoxin-free.

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Grade: Crystallography grade

## Target Details

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Target: MST1R

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Alternative Name: MST1R ([MST1R Products](#))

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Background: Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding to MST1 ligand. Regulates many physiological processes including cell survival, migration and differentiation. Ligand binding at the cell surface induces autophosphorylation of RON on its intracellular domain that provides docking sites for downstream signaling molecules. Following activation by ligand, interacts with the PI3-kinase subunit PIK3R1, PLCG1 or the adapter GAB1. Recruitment of these downstream effectors by RON leads to the activation of several signaling cascades including the RAS-ERK, PI3 kinase-AKT, or PLCgamma-PKC. RON signaling activates the wound healing response by promoting epithelial cell migration, proliferation as well as survival at the wound site. Plays also a role in the innate immune response by regulating the migration and phagocytic activity of macrophages. Alternatively, RON can also promote signals such as cell migration and proliferation in response to growth factors other than MST1 ligand.  
{ECO:0000269|PubMed:18836480, ECO:0000269|PubMed:7939629, ECO:0000269|PubMed:9764835}.

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Molecular Weight: 120.5 kDa Including tag.

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UniProt: [Q04912](#)

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Pathways: [RTK Signaling](#)

## Application Details

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**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.

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**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.

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**Restrictions:** For Research Use only

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## Handling

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**Format:** Liquid

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**Buffer:** 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

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**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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