

Datasheet for ABIN3132681

Angiotensin I Converting Enzyme 1 Protein (AA 35-1312) (rho-1D4 tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	Angiotensin I Converting Enzyme 1 (ACE)
Protein Characteristics:	AA 35-1312
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Angiotensin I Converting Enzyme 1 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>LDPGLQPGNF SPDEAGALF AESYNSSAEV VMFQSTVASW AHDTNITEEN ARRQEEAALV SQEFAEVWGK KAKELYESIW QNFTDSKLRR IIGSIRTLGP ANLPLAQRQQ YNSLLSNMSR IYSTGKVCFP NKTATCWSLD PELTNILASS RSYAKLLFAW EGWHDAGVGP LKPLYQDFTA ISNEAYRQDD FSDTGAFWRS WYESPSFEES LEHIYHQLEP LYLNHAYVR RALHRRYGDK YVNLRGPIPA HLLGDMWAQS WENIYDMVVP FPDKPNLDVT STMVQKGWNA THMFRVSEEF FTSLGLSPMP PEFWAESMLE KPTDGREVVC HASAWDFYNR KDFRIKQCTR VTMEQLATVH HEMGHVQYYL QYKDLHVSLR RGANPGFHEA IGDVLALSVS TPAHLHKIGL LDHVTNDIES DINYLLKMAL EKIAFLPGY LVDQWRWGVF SGRTPPSRYN FDWWYLRTKY QGICPPVARN ETHFDAGAKF HIPNVTPIYR YFVSFVLQFQ FHQALCKEAG HQGPLHQCDI YQSAQAGAKL KQVLQAGCSR PWQEVKDLV GSDALDAKAL LEYFQPVSW LEEQNQRNGE VLGWPENQWR PPLPDNYPEG IDLETDEAKA DRFVEEYDRT AQVLLNEYAE ANWQYNTNIT IEGSKILLEK STEVSNHTLK YGTRAKTFDV SNFQNSSIKR IIKKLQNLDR AVLPPKELEE YNQILLDMET</p>
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TYSLSNICYT NGTCMPLEPD LTNMMATSRK YEELLWAWKS WRDKVGRAIL PFFPKYVEFS
NKIAKLNGYT DAGDSWRSly ESDNLEQDLE KLYQELQPLY LNLHAYVRRS LHRHYGSEYI
NLDGPIPAHL LGNMWAQTSW NIYDLVAPFP SAPNIDATEA MIKQGWTPRR IFKEADNFFT
SLGLLPVPPE FWNKSMLEKP TDGREVVCHP SAWDFYNGKD FRIKQCTSVN MEDLVIAHHE
MGHIQYFMQY KDLPVTFREG ANPGFHEAIG DIMALSVSTP KHLVSLNLLS TEGSGYEYDI
NFLMKMALDK IAFIPFSYLI DQWRWRVFDG SITKENYNQE WWSLRLKYQG LCPPVPRSQG
DFDPGSKFHV PANVPYVRYF VSFIQFQFH EALCRAAGHT GPLHKCDIYQ SKEAGKLLAD
AMKLGYSKPW PEAMKLITGQ PNMSASAMMN YFKPLTEWLV TENRRHGETL GWPEYNWAPN
TARAEGSTAE SNRVNFLGLY LEPQARVGQ WVLLFLGVAL LVATVGLAHR LYNIRNHHS
RRPHRGPFQ SEVELRHS

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 Ace 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:

Product Details

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 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: Angiotensin I Converting Enzyme 1 (ACE)

Alternative Name: Ace ([ACE Products](#))

Background: Converts angiotensin I to angiotensin II by release of the terminal His-Leu, this results in an increase of the vasoconstrictor activity of angiotensin. Also able to inactivate bradykinin, a potent vasodilator. Has also a glycosidase activity which releases GPI-anchored proteins from the membrane by cleaving the mannose linkage in the GPI moiety. This GPIase activity seems to be crucial for the egg-binding ability of the sperm. {ECO:0000269|PubMed:15665832, ECO:0000269|PubMed:7753170, ECO:0000269|PubMed:8642790}.

Molecular Weight: 148.6 kDa Including tag.

UniProt: [P09470](#)

Pathways: [ACE Inhibitor Pathway](#), [Peptide Hormone Metabolism](#), [Regulation of Systemic Arterial Blood Pressure by Hormones](#), [Feeding Behaviour](#), [Smooth Muscle Cell Migration](#)

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