Datasheet for ABIN3112837

Angiotensin I Converting Enzyme 1 Protein (AA 30-1232) (rho-1D4 tag)

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1 Image

Overview

Quantity:	1 mg
Target:	Angiotensin I Converting Enzyme 1 (ACE)
Protein Characteristics:	AA 30-1232
Origin:	Human
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:	LDPGLQPGNF SADEAGAQLF AQSYNSSAEQ VLFQSVAASW AHDTNITAEN ARRQEEAALL SQEFAEAWGQ KAKELYEPIW QNFTDPQLRR IIGAVRTLGS ANLPLAKRQQ YNALLSNMSR IYSTAKVCLP NKTATCWSLD PDLTNILASS RSYAMLLFAW EGWHNAAGIP LKPLYEDFTA LSNEAYKQDG FTDTGAYWRS WYNSPTFEDD LEHLYQQLEP LYLNLHAFVR RALHRRYGDR YINLRGPIPA HLLGDMWAQS WENIYDMVVP FPDKPNLDVT STMLQQGWNA THMFRVAEEF FTSLELSPMP PEFWEGSMLE KPADGREVVC HASAWDFYNR KDFRIKQCTR VTMDQLSTVH HEMGHIQYYL QYKDLPVSLR RGANPGFHEA IGDVLALSVS TPEHLHKIGL LDRVTNDTES DINYLLKMAL EKIAFLPFGY LVDQWRWGVF SGRTPPSRYN FDWWYLRTKY QGICPPVTRN ETHFDAGAKF HVPNVTPYIR YFVSFVLQFQ FHEALCKEAG YEGPLHQCDI YRSTKAGAKL RKVLQAGSSR PWQEVLKDMV GLDALDAQPL LKYFQPVTQW LQEQNQQNGE VLGWPEYQWH PPLPDNYPEG IDLVTDEAEA SKFVEEYDRT SQVVWNEYAE ANWNYNTNIT TETSKILLQK NMQIANHTLK YGTQARKFDV NQLQNTTIKR IIKKVQDLER AALPAQELEE YNKILLDMET

TYSVATVCHP NGSCLQLEPD LTNVMATSRK YEDLLWAWEG WRDKAGRAIL QFYPKYVELI NQAARLNGYV DAGDSWRSMY ETPSLEQDLE RLFQELQPLY LNLHAYVRRA LHRHYGAQHI NLEGPIPAHL LGNMWAQTWS NIYDLVVPFP SAPSMDTTEA MLKQGWTPRR MFKEADDFFT SLGLLPVPPE FWNKSMLEKP TDGREVVCHA SAWDFYNGKD FRIKQCTTVN LEDLVVAHHE MGHIQYFMQY KDLPVALREG ANPGFHEAIG DVLALSVSTP KHLHSLNLLS SEGGSDEHDI NFLMKMALDK IAFIPFSYLV DQWRWRVFDG SITKENYNQE WWSLRLKYQG LCPPVPRTQG DFDPGAKFHI PSSVPYIRYF VSFIIQFQFH EALCQAAGHT GPLHKCDIYQ SKEAGQRLAT AMKLGFSRPW PEAMQLITGQ PNMSASAMLS YFKPLLDWLR TENELHGEKL GWPQYNWTPN SAR

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.
- Human 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 receival 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 fractioned by ultracentrifugation and subsequently solubilized with

Product Details

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.
Molecular Weight:	139.8 kDa Including tag.
UniProt:	P12821
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:	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.

Application Details

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

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