Datasheet for ABIN7126014

HSP90AA1 Protein (full length) (rho-1D4 tag)

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Overview

Quantity:	0.5 mg
Target:	HSP90AA1
Protein Characteristics:	full length
Origin:	CHO cells
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HSP90AA1 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys), Functional Studies (Func)

Product Details

Sequence:	MPEETQTQDQ PMEEEEVETF AFQAEIAQLM SLIINTFYSN KEIFLRELIS NSSDALDKIR YESLTDPSKL DSGKELHINI IPNKQDRTLT IVDTGIGMTK ADLINNLGTI AKSGTKAFME ALQAGADISM IGQFGVGFYT AYLVAEKVTV ITKHNDDEQY AWESSAGGSF TVRTDTGEPM GRGTKVILHL KEDQTEYMEE RRIKEIVKKH SQFIGYPITL FVEKERDKEV SDDEAEEKED KEEEKEKEEK GIDDKPEIED VGSDEEEEEK KDGDKKKKKK IKEKYIDQEE LNKTKPIWTR NPDDITNEEY GEFYKSLTND WEEHLAVKHF SVEGQLEFRA LLFVPRRAPF DLFENRKKKN NIKLYVRRVF IMDNCEELFP EYLNFIRGVV DSEDLPLNIS REILQQSKIL KVIRKNLVRK CLELFHELAE DKENYKKFYE QFSKNIKLGI HEDSQNRKKL SELLRYYTSA SGDEMVSLKD YCTRMKENQK HIYFITGETK DQVANSAFVE RLRKHGLEVI YMIEPIDEYC VQQLKEFEGK TLVSVTKEGL ELPEDEEEKK KQEEKKTKFE NLCKIMKDIL EKKVEKVVVS NRLVTSPCCI VTSTYGWTAN MERIIKAQAL RDNSTMGYMA AKKHLEINPD HSIIETLRQK AEADKNDKSV KDLVILLYET ALLSSGFSLE DPQTHANRIY RMIKLGLGID EDDPTVDDTS AAVTEEMPPL

Product Details

	EGDDDTSRME EVD **Sequence without tag. The location of the tag depends on protein. You may also submit your preference when ordering.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • CHO Heat shock protein HSP 90-alpha 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 custom-made protein and will be made for the first time for your order. This protein will be produced on the basis of on a Custom Service Project. We will make sure that every step in the production is successful from the design of the expression plasmid to the expression and purification of the final protein. Our experts in the lab will ensure that you receive a correctly folded protein. 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 proteins expressed in baculovirus infected SF9 insect cells: 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:	Endotoxins have not been removed. Please contact us if you require an endotoxin-free version of this product.
Grade:	Crystallography grade
Biological Activity Comment:	Protein has not been tested for activity yet.

Target Details

Target:	HSP90AA1
Alternative Name:	Heat shock protein HSP 90-alpha (HSP90AA1 Products)
Background:	Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity which is essential for its chaperone activity. This cycle probably induces conformational changes in the client proteins, thereby causing their activation. Interacts dynamically with various co-chaperones that modulate its substrate recognition, ATPase cycle and chaperone function. Engages with a range of client protein classes via its interaction with various co-chaperone proteins or complexes, that act as adapters, simultaneously able to interact with the specific client and the central chaperone itself. Recruitment of ATP and co-chaperone followed by client protein forms a functional chaperone. After the completion of the chaperoning process, properly folded client protein and co-chaperone leave HSP90 in an ADP-bound partially open conformation and finally, ADP is released from HSP90 which acquires an open conformation for the next cycle. Plays a critical role in mitochondrial import, delivers preproteins to the mitochondrial import receptor TOMM70. Apart from its chaperone activity, it also plays a role in the regulation of the transcription machinery. HSP90 and its co-chaperones modulate transcription at least at three different levels. In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues. Second, they modulate the activity of certain epigenetic modifiers, such as histone deacetylases or DNA methyl transferases, and thereby respond to the change in the environment. Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression. Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes. Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation. Mediates the association of TOMM70 with IRF3 or TBK1 in mitochondrial outer membrane which promotes host antiviral response. {ECO:0000250|UniProtKB:P07900}.
UniProt:	P46633
Pathways:	M Phase, Regulation of Cell Size, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	150 mM NaCL, 20 mM NaH2PO4 pH 7.4, 10 % glycerol. Note: Isoelectric point of protein taken into account regarding pH .
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

