Datasheet for ABIN1686721

CDK5R1 Protein

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Overview

Quantity:	100 µg
Target:	CDK5R1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	Western Blotting (WB), SDS-PAGE (SDS), Functional Studies (Func)

Product Details

Sequence:	SHMQPASAKW YDRRDYVFIE FCVEDSKDVN VNFEKSKLTF SCLGGSDNFK HLNEIDLFHC IDPNDSKHKR TDRSILCCLR KGESGQSWPR LTKERAKLNW LSVDFNNWKD WEDDSDEDMS NFDRFSEMMN NMGGDEDVDL PEVDGADDDS QDSDDEKMPD LE
Specificity:	~23 kDa
Characteristics:	4 µM ABIN1686720, when added to 2 µM SPR-300 (Aha1)-activated Hsp90 (2 µM, His-tagged Hsp90 beta) in 33 mM Hepes pH 7.2, 30 mM NaCl, 5 mM MgCl2, 1 mM DTT, 1.5 mM ATP in a 100 µL reaction at 37 degrees C, eliminated all Aha1-mediated ATPase stimulation as well as intrinsic Hsp90 ATPase activity. (This is an enzyme-linked ATP regeneration assay tracking loss of NADH absorbance at 340nm).
Purification:	Affinity Purified
Purity:	>90%

Target Details

Target:	CDK5R1
Alternative Name:	p23 (CDK5R1 Products)
Target Type:	Viral Protein
Background:	P23 is a highly conserved ubiquitous protein, known to have an important function as a cochaperone for the HSP90 chaperoning system (1). Studies have revealed that p23 is a small protein (18 to 25 kDa) with a simple structure (2, 3). p23 does not have any structural homology with any other known proteins (1). p23 was first discovered as a part of the HSP90-progesterone receptor complex along with HSP70, p54 and p50 (1). p23 is a phosphor-protein, which is highly acidic and has an aspartic acid-rich c-terminal domain (1). Numerous studies have found p23 to be associated with other client proteins like Fes tyrosine kinase (4), the heme regulated kinase HRI (5), hsf1 transcription factor (4), aryl hydrocarbon receptor (4), telomerase (6), and Hepadnavirus reverse transcriptase (7). In spite of several years of study, the exact functional significance of p23 is still not clear (8). p23 is thought to be involved in the adenosine triphosphate-mediated HSP90 binding of client proteins (8). Since many HSP90 client proteins are involved in oncogenic survival signaling, a recent study has concluded p23 to be a promising target in leukemic apoptosis (9). HSP90 and its co-chaperone p23 are certainly among the emerging anti-tumor targets in oncology.
Molecular Weight:	approx. 23 kDa
Gene ID:	10728
NCBI Accession:	NP_006592
UniProt:	Q15185
Pathways:	Stem Cell Maintenance, Regulation of Cell Size, Positive Regulation of Endopeptidase Activity

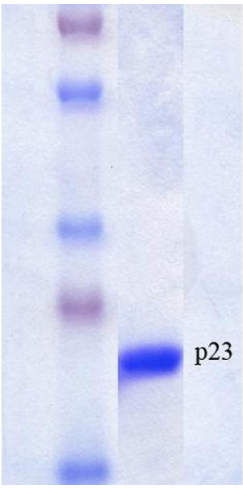
Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	This product has been certified >90% pure using SDS PAGE analysis. 4uM ABIN1686720, when added to 2uM SPR-300 (Aha1)-activated HSP90 (2uM, His-tagged HSP90 beta) in 33mM Hepes pH7.2, 30mM NaCl, 5mM MgCl2, 1mM DTT, 1.5mM ATP in a 100ul reaction at 37 degrees C, eliminated all Aha1-mediated ATPase stimulation as well as intrinsic HSP90 ATPase activity. (This is an enzyme-linked ATP regeneration assay tracking loss of NADH absorbance at 340nm).
Restrictions:	For Research Use only

Handling

Concentration:	Lot specific
Buffer:	20 mM HEPES buffer pH 7.2, 80 mM NaCl, 10 % glycerol
Storage:	-20 °C

Images



SDS-PAGE

Image 1. SDS-PAGE of native human 23 kDa p23 protein (ABIN1686720, ABIN1686721 and ABIN1686722).