10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Hsp90 beta HSP90AB1 Rabbit Monoclonal Antibody

Catalog # ABO14025

Product Information

Application	WB, IHC, IF, ICC
Primary Accession	P08238
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Hsp90 beta HSP90AB1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	3326
Other Names	Heat shock protein HSP 90-beta, HSP 90, Heat shock 84 kDa, HSP 84, HSP84, Heat shock protein family C member 3, HSP90AB1 (HGNC:5258)
Calculated MW	83264
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200
Subcellular Localization	Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: CCC-8
Immunogen	A synthesized peptide derived from human Hsp90 beta
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	HSP90AB1 (HGNC:5258)

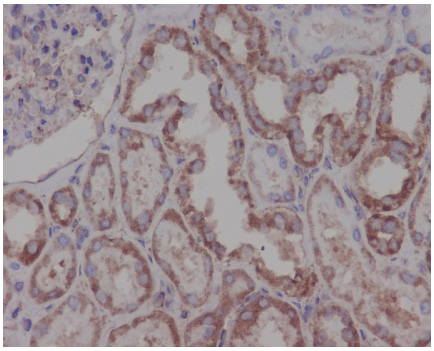
Function

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 linked to its ATPase 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 (PubMed:16478993, PubMed:19696785). 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 (PubMed:26991466, PubMed:27295069). 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. They first 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 (PubMed:25973397). Antagonizes STUB1- mediated inhibition of TGF-beta signaling via inhibition of STUB1- mediated SMAD3 ubiquitination and degradation (PubMed:24613385). Promotes cell differentiation by chaperoning BIRC2 and thereby protecting from auto-ubiquitination and degradation by the proteasomal machinery (PubMed:18239673). Main chaperone involved in the phosphorylation/activation of the STAT1 by chaperoning both JAK2 and PRKCE under heat shock and in turn, activates its own transcription (PubMed:20353823). Involved in the translocation into ERGIC (endoplasmic reticulum-Golgi intermediate compartment) of leaderless cargos (lacking the secretion signal sequence) such as the interleukin 1/IL-1; the translocation process is mediated by the cargo receptor TMED10 (PubMed:32272059).

Cellular Location

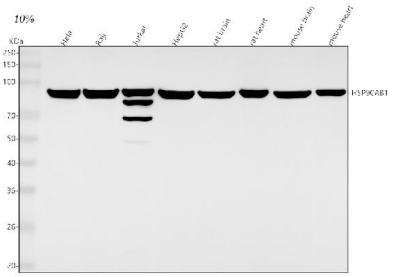
Cytoplasm. Melanosome Nucleus. Secreted. Cell membrane. Dynein axonemal particle {ECO:0000250|UniProtKB:Q6AZV1}. Cell surface. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065) Translocates with BIRC2 from the nucleus to the cytoplasm during differentiation (PubMed:18239673). Secreted when associated with TGFB1 processed form (LAP) (PubMed:20599762).

Images



Immunohistochemical analysis of paraffin-embedded human kidney, using Hsp90 beta antibody .

Figure 1. Western blot analysis of HSP90AB1 using



anti-HSP90AB1 antibody (M01692).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human Raji whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: rat heart tissue lysates,
Lane 7: mouse brain tissue lysates,
Lane 8: mouse heart tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HSP90AB1 antigen affinity purified monoclonal antibody (Catalog # M01692) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HSP90AB1 at approximately 90 kDa. The expected band size for HSP90AB1 is at 83 kDa.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.