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

HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4)

Mouse Monoclonal Antibody
Catalog # ALS16185

Specification

HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - Product Information

Application	**IHC, WB, IF**
Primary Accession	P08238
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**83kDa KDa**

HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - Additional Information

Gene ID 3326

Other Names
Heat shock protein HSP 90-beta, HSP 90, Heat shock 84 kDa, HSP 84, HSP84, HSP90AB1, HSP90B, HSPC2, HSPCB

Target/Specificity
Human HSP 90

Reconstitution & Storage
Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions
HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) is for research use only and not for use in diagnostic or therapeutic procedures.

HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - Protein Information

Name HSP90AB1 (HGNC:5258)

Synonyms HSP90B, HSPC2, HSPCB

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:27295069, PubMed:26991466). 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).

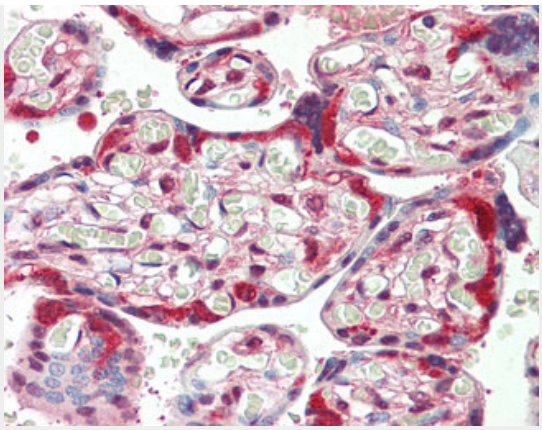
Volume
50 µl

HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - Protocols

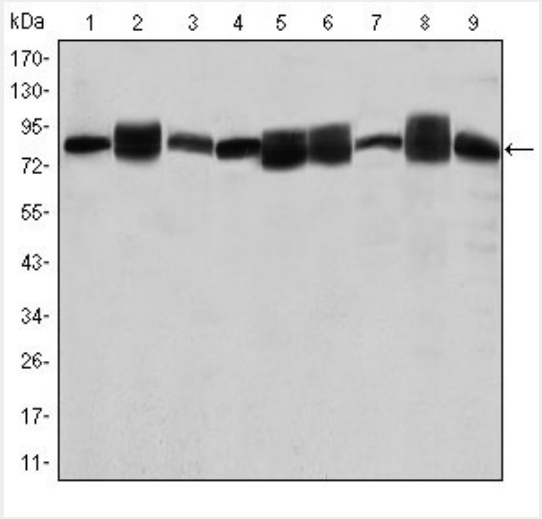
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

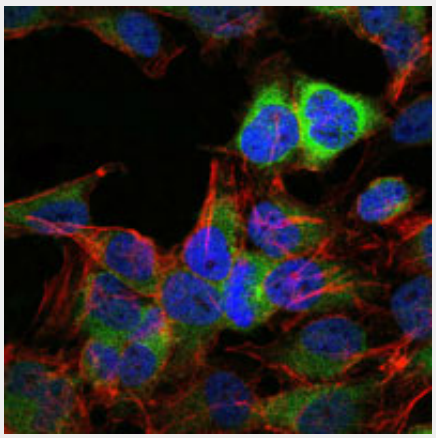
HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - Images



Anti-HSP90AB1 / HSP90 antibody IHC staining of human placenta.



Western blot using HSP90AB1 mouse monoclonal antibody against Jurkat (1), A431 (2), HeLa (3),...



Immunofluorescence of HeLa cells using HSP90AB1 mouse monoclonal antibody (green).

HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - Background

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HSP90AB1 / HSP90 Alpha B1 Antibody (clone 5G4) - References

Rebbe N.F.,et al.Gene 53:235-245(1987).
Rebbe N.F.,et al.J. Biol. Chem. 264:15006-15011(1989).
Hoffmann T.,et al.Gene 74:491-501(1988).
Lu L.,et al.Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
Wiemann S.,et al.Genome Res. 11:422-435(2001).