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hsp90a.1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # Azb18696c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q90474
Reactivity	Zebrafish
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB47443
Calculated MW	83319

Additional Information

Gene ID	30591
Other Names	Heat shock protein HSP 90-alpha 1, hsp90a1, hsp90, hsp90a, hsp90aa1
Target/Specificity	This hsp90a.1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 229-263 amino acids from the Central region of human (DANRE) hsp90a.1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	hsp90a.1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	hsp90a.1
Synonyms	hsp90, hsp90a, hsp90aa1
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 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 (By similarity). Plays a key role in slow and fast muscle development in the embryo. Plays a role in myosin expression and assembly (PubMed:10364427, PubMed:17586488, PubMed:18182494, PubMed:18256191).
Cellular Location	Melanosome {ECO:0000250|UniProtKB:P07900}. Cytoplasm, myofibril, sarcomere, Z line Cytoplasm, myofibril, sarcomere, A band Cytoplasm, perinuclear region Note=Expressed at the Z line and in the perinuclear region of myofibrils. Shuttles between the Z line and A band in response to stress conditions and fibril damage
Tissue Location	Strongly expressed in the early embryos within the somitic slow muscle progenitors, the adaxial cells that lie on either side of the notochord but not the notochord. Also expressed during the early differentiation of fast fibers. Detected in developing cardiac muscles and pectoral fin primordia. Not detected in mature muscle fibers.

Background

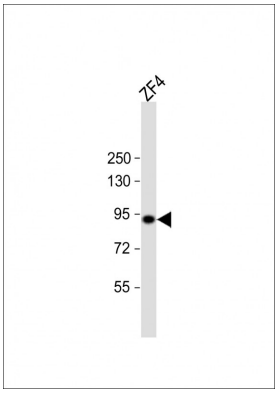
Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity. This cycle probably induces conformational 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 (By similarity). Plays a key role in slow and fast muscle development in the embryo. Plays a role in myosin expression and assembly.

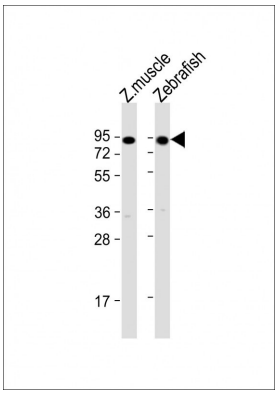
References

Lele Z.,et al.Dev. Biol. 210:56-70(1999).
Etard C.,et al.Dev. Biol. 308:133-143(2007).
Etard C.,et al.J. Cell Biol. 180:1163-1175(2008).
Howe K.,et al.Nature 496:498-503(2013).
Krone P.H.,et al.Biochem. Biophys. Res. Commun. 204:746-752(1994).

Images

Anti-hsp90a. 1 Antibody (Center) at 1:2000 dilution + ZF4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





All lanes : Anti-hsp90a. 1 Antibody (Center) at 1:2000 dilution Lane 1: Zebrafish muscle lysate Lane 2: Zebrafish lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.