

Rabbit anti-Mouse, Rat Hsp27/Hspb1 Polyclonal Antibody | anti-Hsp27 antibody

Anti-Hsp27/Hspb1 Antibody

CATALOG # AAA124908	HOST Rabbit	REACTIVITY Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

Hsp27/Hspb1; Polyclonal Antibody; Anti-Hsp27/Hspb1 Antibody; Heat shock protein beta-1; HspB1; Growth-related 25 kDa protein; Heat shock 25 kDa protein; HSP 25; Heat shock 27 kDa protein; HSP 27; p25; Hspb1; Hsp25; Hsp27; Heat shock protein 1; anti-Hsp27 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized
Sequence Length	197
Applicable Applications for anti-Hsp27 antibody	ELISA (Direct ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived mouse Hsp27 recombinant protein (Position: M1-K209).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Relevant Detection Systems	It is recommended to use an Enhanced Chemiluminescent Kit with anti-Rabbit IgG for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit for IHC-P.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of Hsp27 using anti-Hsp27 antibody. Hsp27 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Hsp27 antibody. Hsp27 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Hsp27 antibody. Hsp27 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Hsp27 Antibody overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Hsp27 using anti-Hsp27 antibody. 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 50ug of sample under reducing conditions. Lane 1: rat skeletal muscle tissue lysates, Lane 2: rat lung tissue lysates, Lane 3: mouse spleen tissue lysates, Lane 4: mouse skeletal muscle tissue lysates, Lane 5: mouse lung tissue lysates, Lane 6: mouse liver tissue lysates, Lane 7: mouse testis tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Hsp27 antigen affinity purified polyclonal antibody at 0.5 ug/ml overnight at 4 degree 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Hsp27 at approximately 27KD. The expected band size for Hsp27 is at 27KD.

ADDITIONAL INFORMATION

Related Product Information for anti-Hsp27 antibody	Description: Rabbit IgG polyclonal antibody for Hsp27 detection. Tested with WB, IHC-P, Direct ELISA in Mouse; Rat. Background: HSPB1 (Heat shock 27kDa protein 1), also known as HSP27, is a protein that in humans is encoded by the HSPB1 gene. It is mapped to 7q11.23. The protein encoded by this gene is induced by environmental stress and developmental changes. The encoded protein is involved in stress resistance and actin organization and translocates from the cytoplasm to the nucleus upon stress induction. Defects in this gene are a cause of Charcot-Marie-Tooth disease type 2F (CMT2F) and distal hereditary motor neuropathy (dHMN).
References	1. Ackerley, S., James, P. A., Kalli, A., French, S., Davies, K. E., Talbot, K. A mutation in the small heat-shock protein HSPB1 leading to distal hereditary motor neuronopathy disrupts neurofilament assembly and the axonal transport of specific cellular cargoes. Hum. Molec. Genet. 15: 347-354, 2006. 2. d'Ydewalle, C., Krishnan, J., Chiheb, D. M., Van Damme, P., Irobi, J., Kozikowski, A. P., Vanden Berghe, P., Timmerman, V., Robberecht, W., Van Den Bosch, L. HDAC6 inhibitors reverse axonal loss in a mouse model of mutant HSPB1-induced Charcot-Marie-Tooth disease. Nature Med. 17: 968-974, 2011. 3. Stock, A. D., Spallone, P. A., Dennis, T. R., Netski, D., Morris, C. A., Mervis, C. B., Hobart, H. H. Heat shock protein 27 gene: chromosomal and molecular location and relationship to Williams syndrome. Am. J. Med. Genet. 120A: 320-325, 2003.

NCBI AND UNIPROT INFORMATION

NCBI GI #	158937312
NCBI GeneID	15507
NCBI Accession #	NP_038588.2
NCBI GenBank Nucleotide #	NM_013560.2
UniProt Accession #	P14602
Molecular Weight	21,961 Da
NCBI Official Full Name	heat shock protein beta-1
NCBI Official Synonym Full Names	heat shock protein 1
NCBI Official Symbol	Hspb1
NCBI Official Synonym Symbols	27kDa; Hsp25
NCBI Protein Information	heat shock protein beta-1
UniProt Protein Name	Heat shock protein beta-1

UniProt Gene Name	Hspb1
UniProt Synonym Gene Names	Hsp25; Hsp27; HspB1; HSP 25; HSP 27

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/hsp27-hspb1-antibody-direct-elisa-immunohistochemistry-western-blot-elisa/124908>