

Hsp20 Polyclonal Antibody

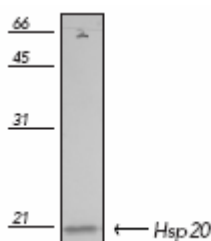
Product Specifications	
Catalog Number:	SPA-796
Host:	Rabbit
Species Reactivity:	Mouse, rat, bovine, canine, guinea pig, pig, rabbit, sheep
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 1:2000 (ECL)
Predicted m.w:	~20 kDa
Concentration:	See product label
Purification:	Peptide Affinity Purified
Format:	Rabbit immunoglobulin in 0.1M phosphate buffer, pH 7.0 containing 3% BSA, 0.09% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Rat skeletal muscle Hsp20 protein
Related Products:	
EKS-500	Hsp27 ELISA Kit
ESP-715	Hsp27 Recombinant Protein

Background:

Hsp20 is a small heat shock protein related to Hsp25, Hsp27 and α B-crystallin and may form different heterocomplexes with these proteins (1). The specific physiologic function of Hsp20 is not yet known (2). It is distributed ubiquitously in tissues, but is found in higher levels in skeletal, smooth and heart muscle (3). Under normal conditions Hsp20 is diffusely distributed in the cytosol, but under heat stress conditions it translocates to the nucleus (1). Unlike other heat shock proteins the amount of Hsp20 does not increase after heat shock (3). Hsp20 can be phosphorylated in vitro by cAMP-dependant protein kinase (PKA) and cGMP-dependant protein kinase (PKG) (2). Phosphorylated Hsp20 is proposed to interact with monomeric actin and α -actinin whereas dephosphorylated Hsp20 binds polymeric actin filaments (4,5). Phosphorylated Hsp20 is also associated with vasorelaxation (3,5). Dissociated Hsp20, but not aggregated Hsp20, suppresses platelet aggregation, and human platelets show specific binding sites for Hsp20. Elevated levels of dissociated Hsp20 have also been found in the plasma of cardiomyopathic hamsters. Hsp20, which immediately responds to pathological events, may act extracellularly as a regulator of platelet functions (6).

References:

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2. Beall, A., *et al.* (1999) *J. Biol. Chem.* **274**(16), 11344-11351.
3. Beall, A.C., *et al.* (1997) *J. Biol. Chem.* **272**(17), 11283-11287.
4. Brophy, C.M., *et al.* (1999) *J. Biol. Chem.* **274**(10), 6324-6329.
5. Tessier, D.J., *et al.* (2003) *J. Surg. Res.* **111**(1), 152-157.
6. Kozawa, O., *et al.* (2002) *Life Sci.* **72**(2), 113-124.



Western blot analysis of rat heart lysate, probed with SPA-796.