

Anti-HSP22

Catalog# SPC-181 C/D

Size: 25/100µL

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This product is for *in vitro* research use only and is not intended for use in humans or animals

StressMarq

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Product	Rabbit anti-Hsp22 antibody; polyclonal
Clone	N/A
Immunogen	Human Hsp22
Host and Subclass	Rabbit polyclonal
Cited Applications	WB, IHC, IP. Other applications not yet tested.
Specificity	Hsp22, does not cross react with hsp27 or alpha crystallin
Species cross-reactivity	Human, Mouse, Rat. Other species not yet tested.
Format	Antiserum
Working dilution	Suggested dilution for WB 1:1000
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

Scientific Background

Hsp22 (HSPB8) is a 196-amino acid protein that is a member of the small heat shock protein super-family and the human protein is most closely related to Hsp27. Similar to most other sHSPs, Hsp22 is predominately transcribed in skeletal muscle and heart, as well as the placenta (1). Hsp22 is a monomeric protein which interacts with HSPB1. It displays temperature-dependent chaperone activity.

In a two hybrid screen, HspB8 interacted preferentially with a triple aspartate form of Hsp27 which mimics Hsp27 phosphorylated at Ser15, Ser78, and Ser82, as compared to wild-type Hsp27 (2). HSPB8 has two binding domains (N and C Terminal) that are specific for different binding partners, and has the ability to bind itself and other sHSPs (3). The chaperone-like activity is of great importance to the function of Hsp22 in various processes including proliferation, apoptosis and macroautophagy (4).

Mutations in the HSPB8 gene are associated with the inherited peripheral neuropathies, autosomal dominant distal hereditary motor neuropathy type IIA (dSMA) and axonal Charcot-Marie-Tooth disease type 2L (CMT2L) (5).

Selected References

1. Kappe G., *et al.* (2001) *Biochem Biophys Acta* 1520: 1-6.
2. Benndorf R., *et al.* (2001) *J Biol Chem* 276: 26753-26761.
3. Sun X., *et al.* (2004) *J Biol Chem* 279: 2394-2402.
4. Kim M.V., *et al.* (2004) *Biochem Biophys Res Commun* 325: 649-652.
5. Wilhelmus M.M., *et al.* (2006) *Acta Neuropathol (Berl)* 111: 139-149.

Certificate of Analysis

1/1000 dilution of SPC-181 was sufficient for detection of Hsp22 in 10µg of rat tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Material Safety Data Sheet

Anti-Hsp22 (Polyclonal Antibody) SPC-181

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The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
None		

Physical Data

This product consists of rabbit antiserum shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Authorized: StressMarq Biosciences Inc.
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