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

HSP22 Antibody
Catalog # ASM10439

Specification

HSP22 Antibody - Product Information

Application	**WB, IHC, ICC**
Primary Accession	Q9UJY1
Other Accession	NP_055180.1
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**

Description
Rabbit Anti-Human HSP22 Polyclonal

Target/Specificity
Detects ~22kDa. Does not cross-react with HSP27 or alpha-crystallin.

Other Names
Alpha crystallin C chain Antibody, CMT2L Antibody, CRYAC Antibody, DHMN2 Antibody, H11 Antibody, Heat shock 22kDa protein 8 Antibody, HMN2 Antibody, HSB8 Antibody, HSPB8 Antibody

Immunogen
Human HSP22

Purification
Peptide Affinity Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
A 1:1000 dilution of SPC-181 was sufficient for detection of HSP22 in 10 µg of rat tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

Cellular Localization
Cytoplasm | Nucleus

HSP22 Antibody - Protocols

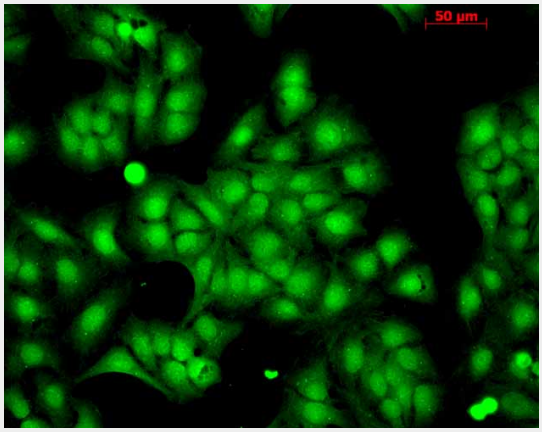
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

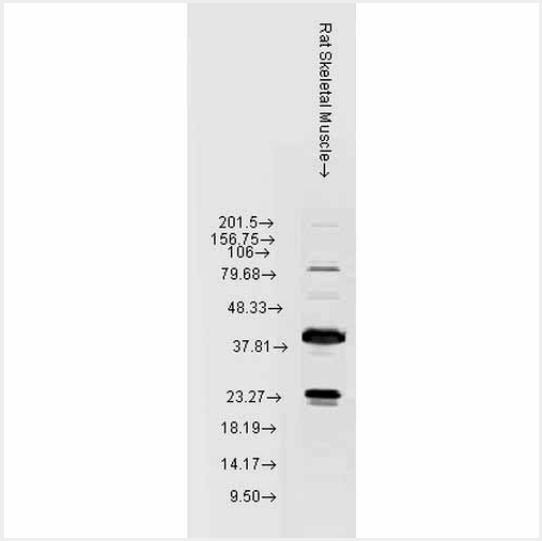
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

- Flow Cytomety
- Cell Culture

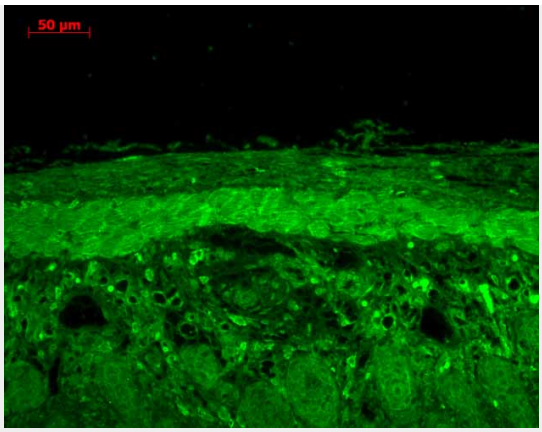
HSP22 Antibody - Images



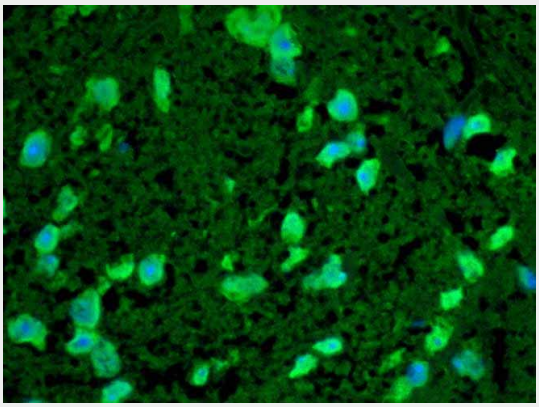
Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol at -20C for 10 minutes. Primary Antibody: Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit at 1:50 for 1-2 hours at RT in dark. Localization: Nuclear Staining.



Western blot analysis of Rat Skeletal muscle lysates showing detection of HSP22 protein using Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439) at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



Immunohistochemistry analysis using Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:50 for 1 hour at RT. Localization: Epidermis positive, dermal staining.



Immunohistochemistry analysis using Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439). Tissue: Spinal cord. Species: Mouse. Primary Antibody: Rabbit Anti-HSP22 Polyclonal Antibody (ASM10439) at 1:100. Secondary Antibody: Alexa Fluor 488 Goat Anti-Rabbit. DAPI merged with Alexa 488. Courtesy of: Joy Irobi-Devolder, University of Antwerp, Belgium..

HSP22 Antibody - 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 macro autophagy (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).

HSP22 Antibody - 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.