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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-HSP22 Antibody [3C12-H11]

Mouse Anti-Human HSP22 Monoclonal IgG1 Kappa
Catalog No. SMC-187



Discovery through partnership | Excellence through quality

Overview

Product Name

HSP22 Antibody

Description

Mouse Anti-Human HSP22 Monoclonal IgG1 Kappa

Species Reactivity

Human, Mouse, Rat

Applications

WB, IHC, ICC/IF, ELISA

Antibody Dilution

WB (1:2000), IHC (1:100); optimal dilutions for assays should be determined by the user.

Host Species

Mouse

Immunogen Species

Human

Immunogen

His-tagged human recombinant HSP22

Concentration

1 mg/ml

Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

Properties

Storage Buffer

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

Storage Temperature

-20°C

Shipping Temperature

Blue Ice or 4°C

Purification

Protein G Purified

Clonality

Monoclonal

Clone Number

3C12-H11

Isotype

IgG1 Kappa

Specificity

Detects ~22kDa. Detects endogenous and exogenous HSP22 in monomeric, dimeric and tetrameric forms in WB. Does not cross react with alpha crystallin.

Cite This Product

Mouse Anti-Human HSP22 Monoclonal, Clone 3C12-H11 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-187)

Certificate Of Analysis

1 µg/ml of SMC-187 was sufficient for detection of HSP22 in 20 µg of whole rat tissue extract by ECL immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Biological Description

Alternative 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

Research Areas

Cancer, Heat Shock

Cellular Localization

Cytoplasm, Nucleus

Accession Number

NP_055180.1, NP_055180.2

Gene ID

26353, 26354

Swiss Prot

Q9UJY1, Q9UJY2

Scientific Background

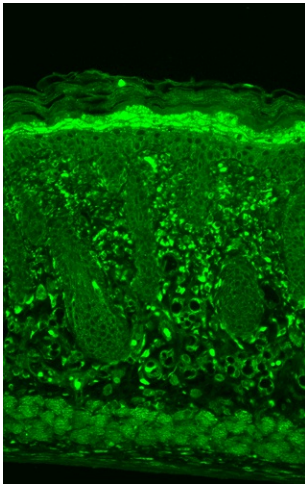
HSP27s belong to an abundant and ubiquitous family of small heat shock proteins (sHSP). It is an important HSP found in both normal human cells and cancer cells. The basic structure of most sHSPs is a homologous and highly conserved amino acid sequence, with an α -crystallin domain at the C-terminus and the WD/EPF domain at the less conserved N-terminus. This N-terminus is essential for the development of high molecular oligomers (1, 2). HSP27-oligomers consist of stable dimers formed by as many as 8-40 HSP27 protein monomers (3). The oligomerization status is connected with the chaperone activity: aggregates of large oligomers have high chaperone activity, whereas dimers have no chaperone activity (4). HSP27 is localized to the cytoplasm of unstressed cells but can redistribute to the nucleus in response to stress, where it may function to stabilize DNA and/or the nuclear membrane. Other functions include chaperone activity (as mentioned above), thermo tolerance in vivo, inhibition of apoptosis, and signal transduction. Specifically, in vitro, it acts as an ATP independent chaperone by inhibiting protein aggregation

and by stabilizing partially denatured proteins, which ensures refolding of the HSP70 complex. HSP27 is also involved in the apoptotic signaling pathway because it interferes with the activation of cytochrome c/Apaf-1/dATP complex, thereby inhibiting the activation of procaspase-9. It is also hypothesized that HSP27 may serve some role in cross-bridge formation between actin and myosin (5). And finally, HSP27 is also thought to be involved in the process of cell differentiation. The up-regulation of HSP27 correlates with the rate of phosphorylation and with an increase of large oligomers. It is possible that HSP27 may play a crucial role in termination of growth (6).

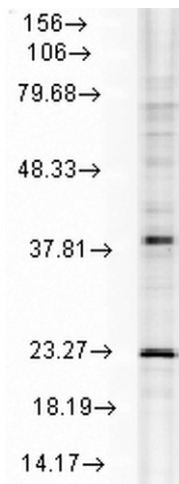
References

- 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.
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Product Images



Immunohistochemistry analysis using Mouse Anti-Hsp22 Monoclonal Antibody, Clone 3C12-H11 (SMC-187). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Hsp22 Monoclonal Antibody (SMC-187) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Granular layer of the epidermis. Some dermal staining.



Western Blot analysis of Rat Cell lysates showing detection of Hsp22 protein using Mouse Anti-Hsp22 Monoclonal Antibody, Clone 3C12-H11 (SMC-187). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp22 Monoclonal Antibody (SMC-187) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.