Datasheet for ABIN863103

anti-HSPB8 antibody

3 Images

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Overview

Quantity:	100 µg
Target:	HSPB8
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSPB8 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	His-tagged human recombinant HSP22
Clone:	3C12-H11
Isotype:	IgG1 kappa
Specificity:	Detects ~22 kDa. Detects endogenous and exogenous HSP22 in monomeric, dimeric and tetrameric forms in WB. Does not cross react with alpha crystallin.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	HSPB8

Target Details

Alternative Name:	HSP22 (HSPB8 Products)
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).
Gene ID:	26353
NCBI Accession:	NP_055180
UniProt:	Q9UJY1

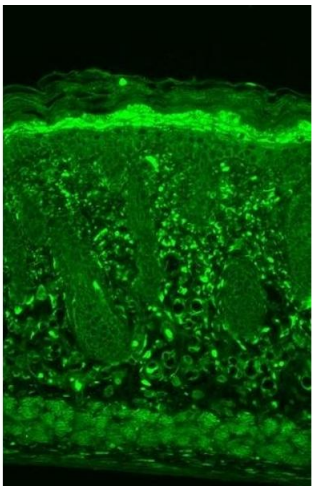
Application Details

Application Notes:	• WB (1:2000) • IHC (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN863102 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.
Restrictions:	For Research Use only

Handling

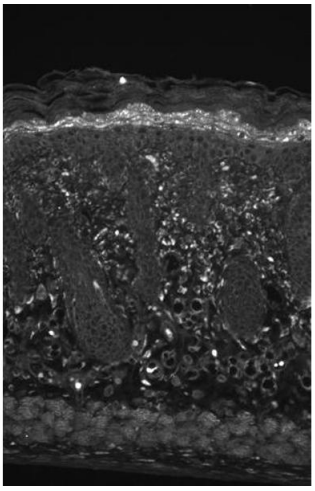
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Images



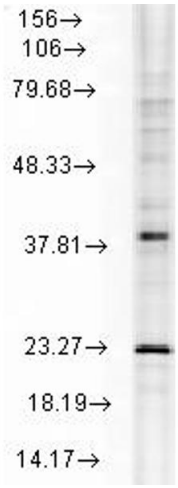
Immunohistochemistry

Image 1. Immunohistochemistry analysis using Mouse Anti-Hsp22 Monoclonal Antibody, Clone 3C12-H11 (ABIN863102 and ABIN863103). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Hsp22 Monoclonal Antibody (ABIN863102 and ABIN863103) 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.



Immunohistochemistry

Image 2. HSP22 (3C12 H11), Mouse backskin.



Western Blotting

Image 3. Rat tissue Mix WB 1 in 1000 Hsp22 monomer and dimer.

