Datasheet for ABIN1580426

anti-HSP27 antibody

2 Images

Go to Product page

Overview

Quantity:	100 µL
Target:	HSP27
Reactivity:	Human, Cow, Mouse, Pig, Rat, Mammalian
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP27 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Clone:	6H11
Isotype:	IgG1
Purification:	affinity purified antibody

Target Details

Target:	HSP27
Alternative Name:	Heat shock protein 27- HSP27 (HSP27 Products)
Background:	The heat shock proteins were discovered, as the name suggests, since they are heavily upregulated when cells are stressed by temperatures above the normal physiological range. They are expressed in unstressed cells also and have a normal function as chaperones, helping other proteins to fold correctly, and are required in much greater amounts if the cell or tissue is

Target Details

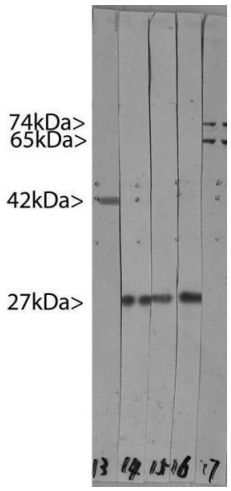
	stressed by heat. The increased levels are generated transcriptionally under the influence of a powerful transcription factor, the heat shock factor 1 (HSF1). The different heat shock proteins were originally named based on their SDS-PAGE mobility, so HSP27 has an apparent molecular weight of 27 kDa. It is an abundant protein even under non-stress conditions and frequently shows up as a major spot on 2 dimensional gels of cells or tissues. It is known to associate with a variety of other proteins such as actin, intermediate filament subunits and ubiquitin and is found both in the cytoplasm and the nucleus of cells. HSP27 can become heavily phosphorylated under the influence of multiple protein kinases particularly as a result of activation of the p38/SAPK pathway. Upregulation of this protein is protective against neurodegenerative diseases at least in certain mouse models. Point mutations in the HSP27 gene are associated with two neurological diseases, Charcot-Marie-Tooth disease type 2F and distal hereditary motor neuropathy IIB. These diseases are associated with axonal loss apparently following defects in the transport of neurofilaments. The HGNC name for this protein is HSBP1.
Pathways:	VEGF Signaling

Application Details

Application Notes:	The antibody solution can be used at dilutions of at least 1:1,000 in immunofluorescence experiments. In western blotting using chemiluminescence it can be used at dilutions of 1:10,000 or lower.
Restrictions:	For Research Use only

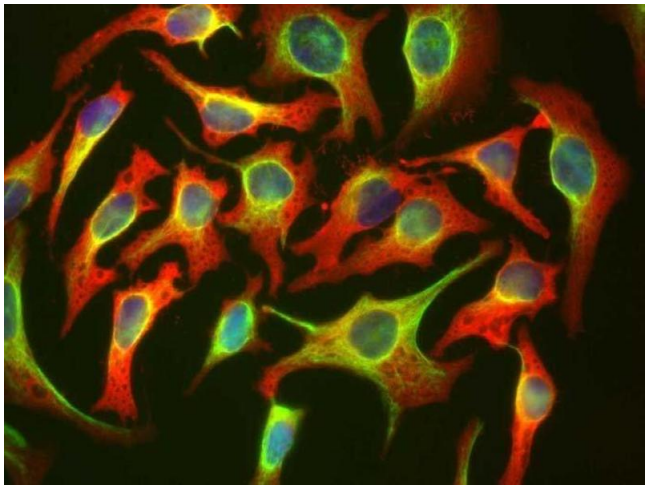
Handling

Format:	Liquid
Concentration:	1 mg/mL
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	Store at 4°C short term or -20°C long term.



Western Blotting

Image 1. Western blots of HeLa cell crude extracts. Lane 16 was probed with ABIN1580426, while lanes 14 and 15 were probed with two other monoclonals to HSP27 we generated at the same time. Note the strong clean bands at 27 kDa. Lane 17 was probed with MCA-4C4, our new mouse monoclonal antibody to Lamin A/C, which binds two bands running at 74 kDa and 65 kDa. Lane 13 was probed with MCA-5J11, our monoclonal antibody to all six actin isotypes. Molecular weights of each protein are as indicated, and dots indicate the presence of major HeLa proteins.



Immunofluorescence

Image 2. HeLa cells staining with ABIN1580426 (red), and counterstained with ’s chicken polyclonal antibody to Vimentin CPCA-Vim (green) and DNA (blue). The ABIN1580426 antibody reveals strong cytoplasmic staining and penetrates into the actin rich ruffled margins, while the Vimentin antibody reveals cytoplasmic intermediate filaments.