abcam

Product datasheet

Anti-Hsp60 antibody [Mab11-13] - Mitochondrial Marker ab13532

23 References 2 Images

Overview

Product name	Anti-Hsp60 antibody [Mab11-13] - Mitochondrial Marker
Description	Mouse monoclonal [Mab11-13] to Hsp60 - Mitochondrial Marker
Host species	Mouse
Tested applications	**Suitable for:** WB, IP, Flow Cyt, Electron Microscopy, ICC/IF, IHC-Fr, ELISA
Species reactivity	**Reacts with:** Mouse, Rat, Rabbit, Guinea pig, Hamster, Cow, Dog, Human, Pig, Drosophila melanogaster, Monkey, Snake, Dolphin, Rainbow trout **Does not react with:** Saccharomyces cerevisiae, Escherichia coli
Immunogen	Recombinant fragment, amino acids 31-547 (Human).
Epitope	This antibody recognizes a surface epitope of Hsp60 in the region of amino acids 288-366.
Positive control	Flow Cyt: HeLa cells. ICC/IF: HeLa cells.
General notes	**Abcam is committed to meeting high quality standards of ethical manufacturing and has decided to discontinue this product by June 2020 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We suggest ab190828 as a possible replacement.**

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Purity	Ascites
Purification notes	Purified from ascites.
Clonality	Monoclonal
Clone number	Mab11-13
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab13532 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/10000. Detects a band of approximately 60 kDa (predicted molecular weight: 68.8 kDa).
IP		Use at an assay dependent concentration.
Flow Cyt		Use 0.5µg for 10^6 cells. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
Electron Microscopy		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.

Target

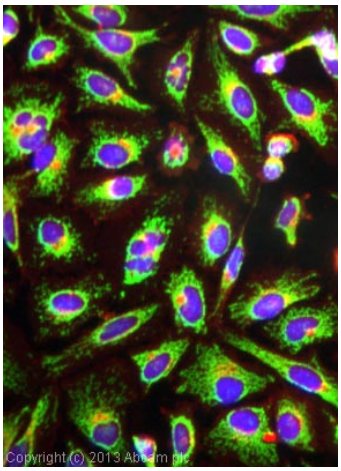
Function Implicated in mitochondrial protein import and macromolecular assembly. May facilitate the correct folding of imported proteins. May also prevent misfolding and promote the refolding and proper assembly of unfolded polypeptides generated under stress conditions in the mitochondrial matrix.

Involvement in disease Defects in HSPD1 are a cause of spastic paraplegia autosomal dominant type 13 (SPG13) [MIM:605280]. Spastic paraplegia is a degenerative spinal cord disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs.
Defects in HSPD1 are the cause of leukodystrophy hypomyelinating type 4 (HLD4) [MIM:612233]; also called mitochondrial HSP60 chaperonopathy or MitCHAP-60 disease. HLD4 is a severe autosomal recessive hypomyelinating leukodystrophy. Clinically characterized by infantile-onset rotary nystagmus, progressive spastic paraplegia, neurologic regression, motor impairment, profound mental retardation. Death usually occurrs within the first two decades of life.

Sequence similarities Belongs to the chaperonin (HSP60) family.

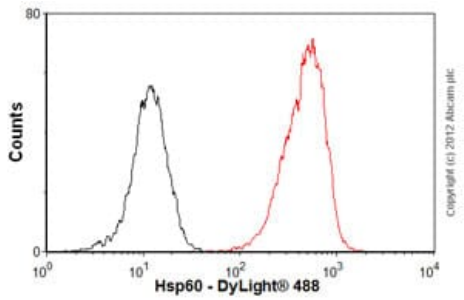
Cellular localization Mitochondrion matrix.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Hsp60 antibody [Mab11-13] - Mitochondrial Marker (ab13532)

ICC/IF image of ab13532 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab13532, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Flow Cytometry - Anti-Hsp60 antibody [Mab11-13] - Mitochondrial Marker (ab13532)

Overlay histogram showing HeLa cells stained with ab13532 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab13532, 0.5µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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