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Anti-Hsp60 (N-terminal region) Antibody

Catalog # AN1813

Product Information

Application	WB, ICC
Primary Accession	P10809
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Clone Names	M438
Calculated MW	61055

Additional Information

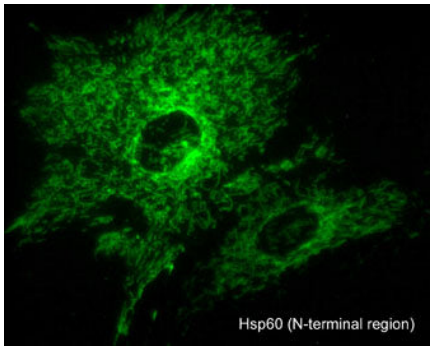
Gene ID	3329
Other Names	Hsp
Target/Specificity	Heat shock proteins (Hsp) are a family of highly conserved proteins that include both constitutively expressed (Hsp60, Hsp70, and Hsp90) and stress-induced (Hsp27 and Hsp72) proteins. Hsp60 is a mitochondrial protein that promotes protein folding and facilitates proteolytic degradation of misfolded or denatured proteins in the mitochondria. Hsp10 interacts with Hsp60 to regulate its substrate binding and ATPase activity. In HeLa and Jurkat mitochondria, Hsp60 associates with caspase-3 to form a complex that dissociates and releases from the mitochondria during apoptosis. Hsp60 accelerates the maturation of procaspase-3 through its ATP-dependent “foldase” activity. In addition to its protein folding activity, Hsp60 can bind the toll-like receptor-4 complex leading to production of TNFα and stimulation of a pro-inflammatory response in macrophages. Thus, the protein folding function of Hsp60 is involved in protein folding in both normal and apoptotic cells, while release of Hsp60 during necrosis is thought to stimulate a pro-inflammatory response.
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Hsp60 (N-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

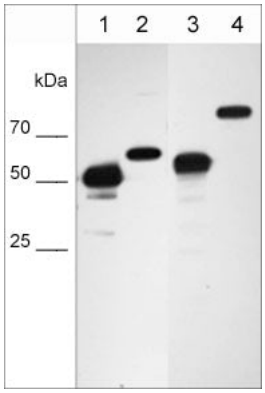
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mitochondrial protein that promotes protein folding and facilitates proteolytic degradation of misfolded or denatured proteins in the mitochondria. Hsp10 interacts with Hsp60 to regulate its substrate binding and ATPase activity. In HeLa and Jurkat mitochondria, Hsp60 associates with caspase-3 to form a complex that dissociates and releases from the mitochondria during apoptosis. Hsp60 accelerates the maturation of procaspase-3 through its ATP-dependent “foldase” activity. In addition to its protein folding activity, Hsp60 can bind the toll-like receptor-4 complex leading to production of TNFα and stimulation of a pro-inflammatory response in macrophages. Thus, the protein folding function of Hsp60 is involved in protein folding in both normal and apoptotic cells, while release of Hsp60 during necrosis is thought to stimulate a pro-inflammatory response.

Images



Immunocytochemical labeling of Hsp60 in mitochondria in paraformaldehyde-fixed and NP40-permeabilized A7r5 cells. The cells were labeled with mouse monoclonal Hsp60 (AN1813). The antibody was detected using goat anti-mouse DyLight® 488.



Western blot image of cell structure markers in NCI-H1915 lung carcinoma cells. The blot was probed with anti-Vimentin intermediate filament protein VM4341 (lane 1), anti-Nucleoporin p62 NM4361 (lane 2), anti-Hsp60 mitochondrial protein AN1813 (lane 3), and anti-Calnexin endoplasmic reticulum protein CM4371 (lane 4).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.