

# Anti-Hsp60 (N-terminal region) Antibody

Catalog # AN1813

## Product Information

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<b>Application</b>	WB, ICC
<b>Primary Accession</b>	<a href="#">P10809</a>
<b>Host</b>	Mouse
<b>Clonality</b>	Mouse Monoclonal
<b>Isotype</b>	IgG1
<b>Clone Names</b>	M438
<b>Calculated MW</b>	61055

## Additional Information

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<b>Gene ID</b>	3329
<b>Other Names</b>	Hsp

<b>Target/Specificity</b>	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 TNF $\alpha$ 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.
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<b>Dilution</b>	WB~~1:1000 ICC~~N/A
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<b>Storage</b>	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.
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<b>Precautions</b>	Anti-Hsp60 (N-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
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<b>Shipping</b>	Blue Ice
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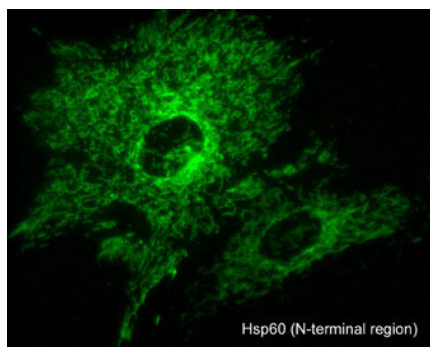
## Background

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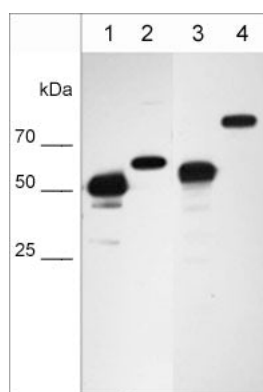
Heat shock proteins (Hsp) are a family of highly conserved proteins that include both constitutively expressed (Hsp60, Hsp70, and Hsp90) and stress-induced (Hsp27 and Hsp72) proteins. Hsp60 is a

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 TNF $\alpha$  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'.