

Anti-Hsp60 (N-terminal region) Antibody
Catalog # AN1813**Specification**

Anti-Hsp60 (N-terminal region) Antibody - Product Information

Application	WB
Primary Accession	P10809
Reactivity	Bovine
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Calculated MW	61055

Anti-Hsp60 (N-terminal region) Antibody - 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 TNF α 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

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

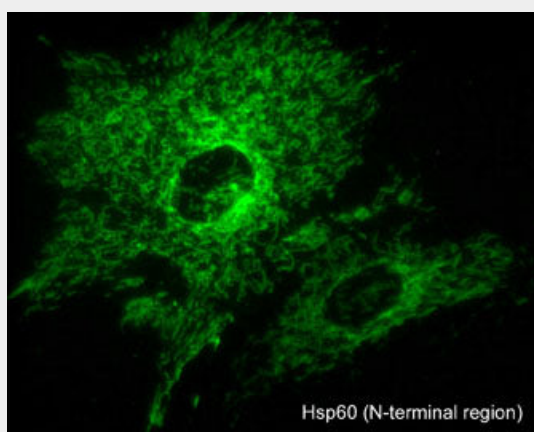
Blue Ice

Anti-Hsp60 (N-terminal region) Antibody - Protocols

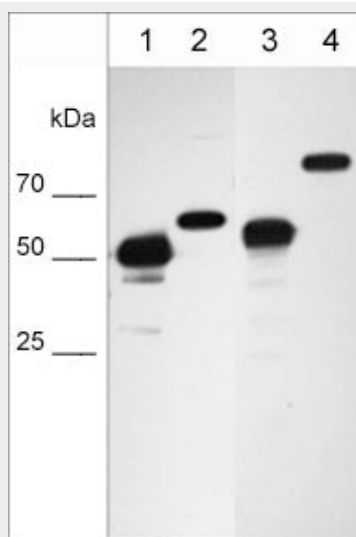
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Hsp60 (N-terminal region) Antibody - Images



Immunocytochemical labeling of Hsp60 in mitochondria in paraformaldehyde-fixed and NP40-permeabilized A7r5 cells. The cells were labeled with mouse monoclonal Hsp60 (HM4381). 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 HM4381 (lane 3), and anti-Calnexin endoplasmic reticulum protein CM4371 (lane 4).

Anti-Hsp60 (N-terminal region) Antibody - Background

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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 α 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.