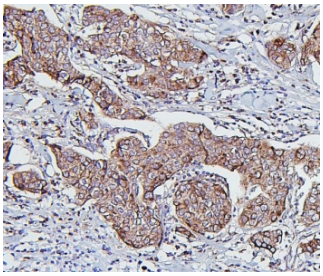
Hsp60 Antibody [clone 6G2] (RQ5508)

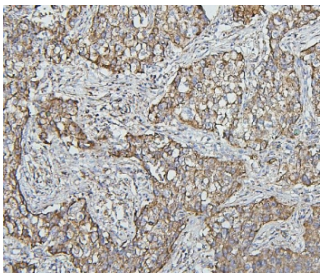
Catalog No.	Formulation	Size
RQ5508	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

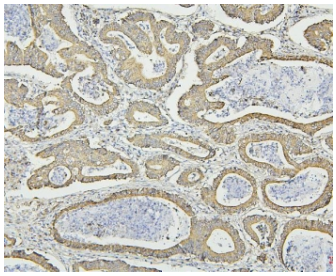
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	6G2
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P10809
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This Hsp60 antibody is available for research use only.



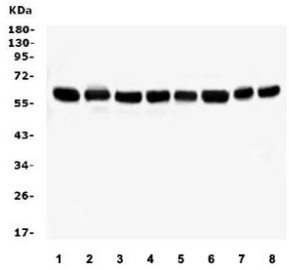
IHC staining of FFPE human breast cancer with Hsp60 antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



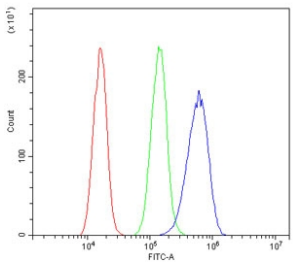
IHC staining of FFPE human lung cancer with Hsp60 antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



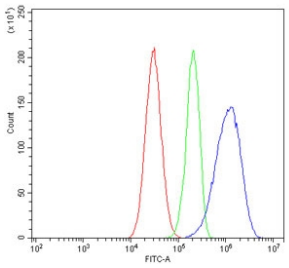
IHC staining of FFPE human intestinal cancer with Hsp60 antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



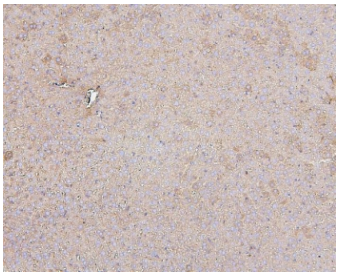
Western blot testing of human 1) Caco-2, 2) A549, 3) ThP-1, 4) SW620, 5) U-937, 6) HepG2, 7) rat RH30 and 8) mouse RAW246.7 lysate with Hsp60 antibody. Predicted molecular weight ~60 kDa.



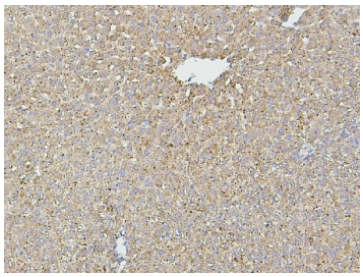
Flow cytometry testing of human A431 cells with Hsp60 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Hsp60 antibody.



Flow cytometry testing of human HepG2 cells with Hsp60 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Hsp60 antibody.



IHC staining of FFPE mouse liver with Hsp60 antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



IHC staining of FFPE rat liver with Hsp60 antibody. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.

Description

HSP60 is a member of the chaperonin class of protein factors, which include the Escherichia coli groEL protein and the Rubisco subunit-binding protein of chloroplasts. It acts as a costimulator of human regulatory CD4-positive/CD25 -positive T cells, which inhibit lymphoproliferation and IFNG and TNF secretion by CD4-positive and CD8-positive T cells. HSP60 enhances Treg activity via TLR2, leading to activation of an intracellular signaling cascade that included p38, as well as inhibition of ERK phosphorylation. Suppression of target T cells is mediated by both cell-to-cell contact and by secretion of TGFB and IL10, and it leads to downregulation of ERK, NFKB, and TBET expression. The self-molecule HSP60 can downregulate adaptive immune responses by upregulating Tregs through TLR2 signaling.

For a recombinant, Protein Microarray Validated option with broad mammalian species validation, see our HSP60 Antibody / Heat Shock Protein 60 Antibody page.

Application Notes

Optimal dilution of the Hsp60 antibody should be determined by the researcher.

Immunogen

A human recombinant protein (amino acids A260-Q496) was used as the immunogen for the Hsp60 antibody.

Storage

After reconstitution, the Hsp60 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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