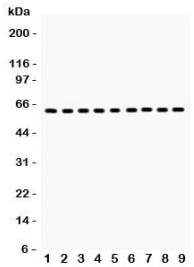
HSP60 Antibody / HSPD1 (R31750)

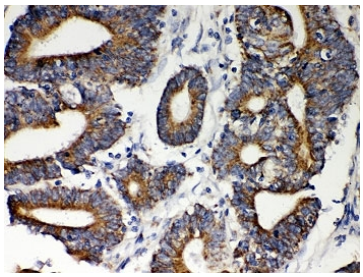
Catalog No.	Formulation	Size
R31750	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

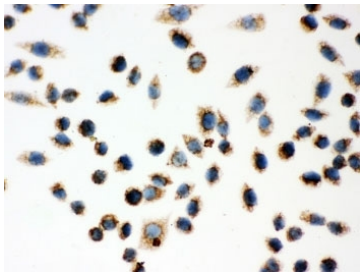
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
Gene ID	3329
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml Immunocytochemistry: 0.5-1ug/ml Immunofluorescence: 2-3ug/ml Flow cytometry: 1-3ug/10^6 cells
Limitations	This HSP60 antibody is available for research use only.



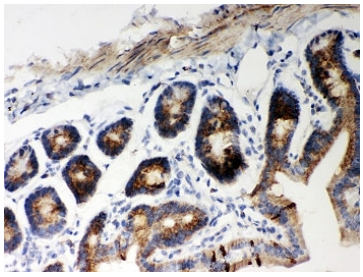
Western blot testing of HSP60 antibody and Lane 1: rat kidney; 2: mouse kidney; 3: (m) HEPA; 4: (r) NRK; 5: (r) PC12; 6: human SW620; 7: (h) A549; 8: (h) A431; 9: (h) HeLa lysate. Predicted/observed molecular weight: ~60 kDa.



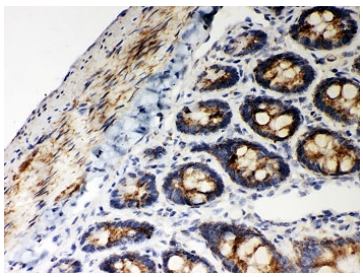
IHC-P: HSP60 antibody testing of human intestine cancer tissue. HIER: steamed with pH6 citrate buffer.



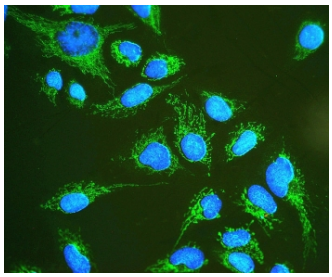
ICC testing of HSP60 antibody and SMMC-7721 cells



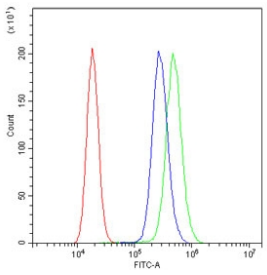
IHC-P testing of mouse intestine tissue. HIER: steamed with pH6 citrate buffer.



IHC-P testing of rat intestine tissue. HIER: steamed with pH6 citrate buffer.



Immunofluorescent staining of FFPE human U-2 OS cells with HSP60 antibody (green) at 2ug/ml and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Flow cytometry testing of human A431 cells with HSP60 antibody at 1ug/10^6 cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= HSP60 antibody.

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 TLR2signaling.

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

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the HSP60 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 260-496) was used as the immunogen for this 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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