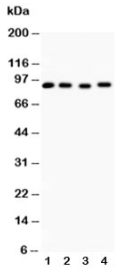
HSP90 alpha Antibody / HSP90AA1 (R31515)

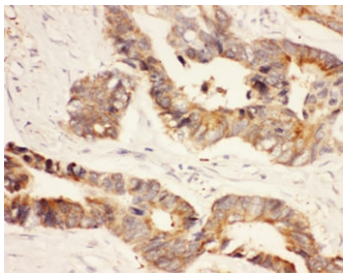
Catalog No.	Formulation	Size
R31515	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

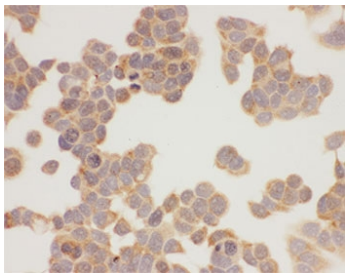
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
Gene ID	3320
Localization	Cell membrane, cytoplasm
Applications	Western blot: 0.5-1ug/ml IHC (FFPE): 0.5-1ug/ml Immunocytochemistry: 0.5-1ug/ml
Limitations	This HSP90 alpha antibody is available for research use only.



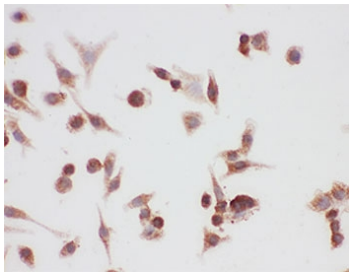
HSP90 alpha Antibody WB. Western blot analysis of rat liver (lane 1), human HeLa (lane 2), human MCF-7 (lane 3), and human Raji (lane 4) lysates using HSP90 alpha Antibody / Heat Shock Protein 90 Alpha Antibody demonstrates a strong immunoreactive band at approximately 86-90 kDa in all samples tested. The staining pattern is consistent with expression of HSP90 alpha (HSP90AA1), a highly conserved ATP-dependent molecular chaperone that regulates protein folding, stabilization of client proteins, signal transduction, and cellular stress-response pathways. HSP90 alpha is ubiquitously expressed in many tissues and cell types, reflecting its essential role in maintaining proteostasis and cellular homeostasis. The observed cross-species reactivity supports detection of HSP90 alpha in both rodent and human samples by western blot analysis. Predicted molecular weight: approximately 86-90 kDa.



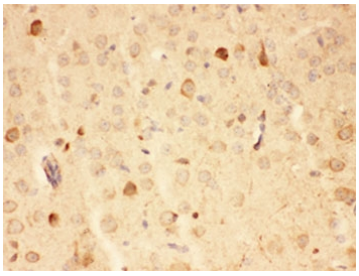
HSP90 alpha Antibody Intestinal Cancer IHC. Immunohistochemistry staining of FFPE human intestinal cancer tissue using HSP90 alpha Antibody / Heat Shock Protein 90 Alpha Antibody demonstrates moderate to strong cytoplasmic HRP-DAB brown staining within malignant gland-forming epithelial cells. The staining pattern is consistent with expression of HSP90 alpha (HSP90AA1), a highly conserved ATP-dependent molecular chaperone involved in protein folding, stabilization of client proteins, signal transduction, and cellular stress-response pathways. HSP90 alpha supports the function of numerous regulatory proteins associated with cellular proliferation, survival, and adaptation to tumor-associated stress. HIER was performed by steaming tissue sections in pH 6 citrate buffer prior to immunostaining.



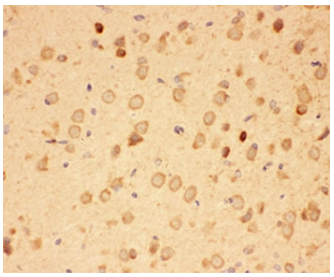
HSP90 alpha Antibody ICC. Immunocytochemistry staining of human MCF-7 cells using HSP90 alpha Antibody / Heat Shock Protein 90 Alpha Antibody demonstrates diffuse cytoplasmic immunoreactivity with minimal nuclear staining. The staining pattern is consistent with expression of HSP90 alpha (HSP90AA1), a highly conserved ATP-dependent molecular chaperone that regulates protein folding, stabilization of client proteins, signal transduction, and cellular stress-response pathways. HSP90 alpha is predominantly localized within the cytoplasm, where it maintains proteostasis and supports the activity of numerous signaling and regulatory proteins involved in cellular growth, survival, and adaptation to physiological stress. The observed staining supports detection of HSP90 alpha expression in cultured human breast adenocarcinoma cells by immunocytochemistry.



HSP90 alpha Antibody A549 ICC. Immunocytochemistry staining of human A549 cells using HSP90 alpha Antibody / Heat Shock Protein 90 Alpha Antibody demonstrates predominantly cytoplasmic immunoreactivity with weaker nuclear staining. The staining pattern is consistent with expression of HSP90 alpha (HSP90AA1), a highly conserved ATP-dependent molecular chaperone involved in protein folding, stabilization of client proteins, signal transduction, and cellular stress-response pathways. HSP90 alpha is primarily localized within the cytoplasm, where it supports proteostasis and maintains the functional stability of numerous signaling and regulatory proteins. The observed staining supports detection of HSP90 alpha expression in cultured human lung carcinoma cells by immunocytochemistry.



HSP90 alpha Antibody Mouse Brain IHC. Immunohistochemistry staining of FFPE mouse brain tissue using HSP90 alpha Antibody / Heat Shock Protein 90 Alpha Antibody demonstrates diffuse cytoplasmic HRP-DAB brown staining throughout neural tissue with scattered cells exhibiting stronger immunoreactivity. The staining pattern is consistent with expression of HSP90 alpha (HSP90AA1), a highly conserved ATP-dependent molecular chaperone that regulates protein folding, stabilization of client proteins, signal transduction, and cellular stress-response pathways. HSP90 alpha is abundantly expressed in neuronal and glial populations where it contributes to proteostasis, maintenance of cellular homeostasis, and protection against protein misfolding. HIER was performed by steaming tissue sections in pH 6 citrate buffer prior to immunostaining.



HSP90 alpha Antibody Rat Brain IHC. Immunohistochemistry staining of FFPE rat brain tissue using HSP90 alpha Antibody / Heat Shock Protein 90 Alpha Antibody demonstrates diffuse cytoplasmic HRP-DAB brown staining throughout neural tissue with prominent immunoreactivity in scattered neuronal cell populations. The staining pattern is consistent with expression of HSP90 alpha (HSP90AA1), a highly conserved ATP-dependent molecular chaperone involved in protein folding, stabilization of client proteins, signal transduction, and cellular stress-response pathways. HSP90 alpha plays an essential role in maintaining proteostasis and cellular homeostasis within the nervous system, where it supports the function and stability of numerous signaling and regulatory proteins. HIER was performed by steaming tissue sections in pH 6 citrate buffer prior to immunostaining.

Description

HSP90 alpha Antibody binds Heat shock protein 90, a chaperone protein that assists other proteins to fold properly, stabilizes proteins against heat stress, and aids in protein degradation. Inhibitors of it are investigated as anti-cancer drugs. Heat shock proteins, as a class, are among the most highly expressed cellular proteins across all species. HSP90 acts as a capacitor for morphologic evolution through epigenetic and genetic mechanisms. It is a molecular chaperone that plays a key role in the conformational maturation of oncogenic signaling proteins, including HER2/ERBB2, AKT, RAF1, BCR-ABL, and mutated p53. Although it is highly expressed in most cells, HSP90 inhibitors selectively kill cancer cells compared to normal cells, and the the inhibitor 17-allylaminogeldanamycin (17-AAG) exhibited antitumor activity in preclinical models.

Learn more about HSP90AA1 expression, molecular chaperone function, protein folding, and cellular stress-response pathways on our HSP90AA1 Antibody / Heat Shock Protein 90 Alpha Antibody page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the HSP90 alpha antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 2-365) was used as the immunogen for this HSP90 alpha antibody.

Storage

After reconstitution, the HSP90 alpha 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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