SANTA CRUZ BIOTECHNOLOGY, INC.

HSP 90β (AT94B9): sc-517405

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The Power to Question

BACKGROUND

Heat shock protein (HSP) molecular chaperones are environmental stress-inducible gene products. The human HSP 90 family includes 17 genes that fall into 4 classes: HSP90AA, HSP90AB, HSP90B and TRAP. HSP 90 family members guide the normal folding, intracellular disposition and proteolytic turnover of many key regulators of cell growth, differentiation and survival. HSP 90α, also designated HSP 90A, HSP 86 and LPS-associated protein 2 (LAP2), is a cytosolic enhancer of inducible nitric-oxide synthase (iNOS), with chaperone activity that is important for the transcriptional activity of p53. HSP 90β, also designated HSP 90B, HSP 84 and HSPC2, is a cytosolic protein that participates in signaling pathways with PKC e to protect cells from external damage, particularly in heat shock-mediated events. GRP 94, also known as tumor rejection antigen 1 (TRA1), ECGP and GP96, localizes to the ER, is highly expressed in BGC-823 human gastric carcinoma cells and is upregulated in human endothelial cells in response to hypoxia by HIF-1. TRAP1 (TNF receptor-associated protein 1), also designated HSP 75) is a mitochondrial matrix component that plays a role in the induction of apoptosis in response to reactive oxygen species.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HSP90B1 (human) mapping to 12q23.3.

SOURCE

HSP 90 (AT94B9) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 22-803 of HSP 90 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 1% glycerol.

APPLICATIONS

HSP 90β (AT94B9) is recommended for detection of HSP 90β of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HSP 90β siRNA (h): sc-35606, HSP 90β shRNA Plasmid (h): sc-35606-SH and HSP 90β shRNA (h) Lentiviral Particles: sc-35606-V.

Molecular Weight of HSP 90β: 90 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.