SANTA CRUZ BIOTECHNOLOGY, INC.

Hip (D-15): sc-6159

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The HSP 70 family is comprised of four highly conserved proteins: HSP 70, HSC 70, GRP 75 and GRP 78. These proteins serve a variety functions as molecular chaperones and aide in the assembly of multi-protein complexes. In addition to these specialized functions, the HSP 70 family may play a more general role in stabilizing protein conformation and preventing protein aggregation. HSC 70 in the mitochondrial and endoplasmic reticulum acts as ATP-driven, force generating motors that translocate proteins across organelle membranes. An HSC 70-interacting protein designated Hip, has been identified as a cochaperone in the HSC 70/HSP 40 reaction cycle. One Hip oligomer binds the ATPase domains of at least two HSC 70 molecules. This association is dependent on the activation of the HSC 70 ATPase by HSP 40. Hip functions to stabilize HSC 70 in the ADP-bound state which has high affinity for substrate protein. Through its own chaperoning activity, Hip may contribute to the substrate specificity of the HSC 70 complex.

CHROMOSOMAL LOCATION

Genetic locus: ST13 (human) mapping to 22q13.2; St13 (mouse) mapping to 15 E2.

SOURCE

Hip (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Hip of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6159 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Hip (D-15) is recommended for detection of Hip of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Hip (D-15) is also recommended for detection of Hip in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Hip siRNA (h): sc-40683, Hip siRNA (m): sc-40684, Hip shRNA Plasmid (h): sc-40683-SH, Hip shRNA Plasmid (m): sc-40684-SH, Hip shRNA (h) Lentiviral Particles: sc-40683-V and Hip shRNA (m) Lentiviral Particles: sc-40684-V.

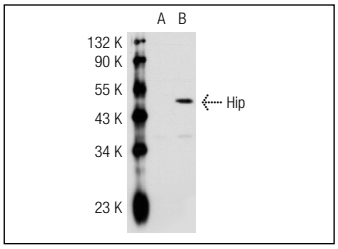
Molecular Weight of Hip: 50 kDa.

Positive Controls: Hip (m): 293T Lysate: sc-120785.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Hip (D-15): sc-6159. Western blot analysis of Hip expression in non-transfected: sc-117752 (**A**) and mouse Hip transfected: sc-120785 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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