**BACKGROUND**

Rho, the Ras-related small GTPase, is responsible for the regulation of Actin-based cytoskeletal structures, including stress fibers, focal adhesions and the contractile ring apparatus. Rho proteins function as molecular switches that are able to turn cytokines on and off. Although little is known about signaling downstream of Rho, a host of putative Rho effector proteins have been described, including rhophilin, rhotekin, citron and the serine/threonine kinase, protein kinase N. Two additional Rho-activated serine/threonine kinases have been described, designated Rock-1 and Rock-2 (also referred to as Rokα) for Rho-associated coil-containing protein kinase. Rock-1 and Rock-2 share a structural similarity with myotonic dystrophy kinase.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ROCK2 (human) mapping to 2p25.1; Rock2 (mouse) mapping to 12 A1.1.

**SOURCE**

Rock-2 (D-11) is a mouse monoclonal antibody raised against amino acids 775-860 mapping within an internal region of Rock-2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rock-2 (D-11) is available conjugated to agarose (sc-398519 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398519 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-398519 PE), fluorescein (sc-398519 FITC), Alexa Fluor® 488 (sc-398519 AF488) or Alexa Fluor® 647 (sc-398519 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

Rock-2 (D-11) is recommended for detection of Rock-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).


Molecular Weight of Rock-2: 160 kDa.

Positive Controls: MCF-7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or Y79 cell lysate: sc-2240.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

**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.