BACKGROUND

POH1, the human homolog of yeast Pad1, is part of the 26S proteasome which degrades protein targeted for destruction by the ubiquitin pathway. Specifically, POH1 is part of the 19S regulatory cap of the 26S proteasome where it deubiquitinates proteins and allows proteins to pass through the narrow, cylindrical 26S proteasome core. POH1 is most abundantly expressed in heart and skeletal muscle. Transient overexpression of POH1 in mammalian cells confers P-glycoprotein-independent resistance to Taxol, doxorubicin, 7-hydroxystaurosporine and ultraviolet light. The gene encoding human POH1 maps to chromosome 2q24.2. The Pad1 homolog in marine sponges (POHL) is upregulated in response to toxins Staurosporine and Taxol. In Schistosoma mansoni, the Pad1 homologue SmPOH appears to stabilize c-Jun and elevates the levels of c-Jun for transactivation of AP-1-responsive genes.

REFERENCES


Genetic locus: PSMD14 (human) mapping to 2q24.2; Psmd14 (mouse) mapping to 2C1.3.

SOURCE

POH1 (SQ-17) is a mouse monoclonal antibody raised against recombinant POH1 of human origin.

PRODUCT

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

POH1 (SQ-17) is recommended for detection of POH1 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).

Suitable for use as control antibody for POH1 siRNA (h); sc-106427, POH1 siRNA (m); sc-152368, POH1 shRNA Plasmid (h); sc-106427-SH, POH1 shRNA Plasmid (m); sc-152368-SH, POH1 shRNA (h) Lentiviral Particles: sc-106427-V and POH1 shRNA (m) Lentiviral Particles: sc-152368-V.

Molecular Weight of POH1: 35 kDa.

Positive Controls: A-431 whole cell lysate; sc-2201.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGx BP-RTC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

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

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