SANTA CRUZ BIOTECHNOLOGY, INC.

MOAP1 (H-71): sc-67319

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MOAP1 (Modulator of apoptosis 1) is a 352 amino acid protein encoded by the human gene MOAP1. MOAP1 belongs to the PNMA family and contains one BH3-like domain and one RASSF1-binding domain. It is required for death receptor-dependent apoptosis. When MOAP1 is associated with RASSF1, it promotes a Bax conformational change and translocation to mitochondrial membranes in response to TNF and TNFSF10 stimulation. MOAP1 is a homodimer and under normal circumstances, held in an inactive conformation by an intramolecular interaction. Binding to RASSF1 isoform A (RASSF1A) relieves this inhibitory interaction and allows further binding to Bax. MOAP1 will also bind to Bcl-2 and Bcl-x.

REFERENCES

1. Tan, K.O., Tan, K.M., Chan, S.L., Yee, K.S., Bevort, M., Ang, K.C. and Yu, V.C. 2001. MAP-1, a novel proapoptotic protein containing a BH3-like motif that associates with Bax through its Bcl-2 homology domains. J. Biol. Chem. 276: 2802-2807.
2. Tan, K.O., Fu, N.Y., Sukumaran, S.K., Chan, S.L., Kang, J.H., Poon, K.L., Chen, B.S. and Yu, V.C. 2005. MAP-1 is a mitochondrial effector of Bax. Proc. Natl. Acad. Sci. USA 102: 14623-14628.
3. Baksh, S., Tommasi, S., Fenton, S., Yu, V.C., Martins, L.M., Pfeifer, G.P., Latif, F., Downward, J. and Neel, B.G. 2005. The tumor suppressor RASSF1A and MAP-1 link death receptor signaling to Bax conformational change and cell death. Mol. Cell 18: 637-650.
4. Tretyakova, I., Zolotukhin, A.S., Tan, W., Bear, J., Propst, F., Ruthel, G. and Felber, B.K. 2005. Nuclear export factor family protein participates in cytoplasmic mRNA trafficking. J. Biol. Chem. 280: 31981-31990.
5. Schüller, M., Jenne, D. and Voltz, R. 2005. The human PNMA family: novel neuronal proteins implicated in paraneoplastic neurological disease. J. Neuroimmunol. 169: 172-176.
6. Vos, M.D., Dallol, A., Eckfeld, K., Allen, N.P., Donninger, H., Hesson, L.B., Calvisi, D., Latif, F. and Clark, G.J. 2006. The RASSF1A tumor suppressor activates Bax via MOAP1. J. Biol. Chem. 281: 4557-4563.

CHROMOSOMAL LOCATION

Genetic locus: MOAP1 (human) mapping to 14q32; Moap1 (mouse) mapping to 12 E.

SOURCE

MOAP1 (H-71) is a rabbit polyclonal antibody raised against amino acids 96-166 mapping within an internal region of MOAP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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.

APPLICATIONS

MOAP1 (H-71) is recommended for detection of MOAP1 of human and, to a lesser extent, mouse and rat 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).

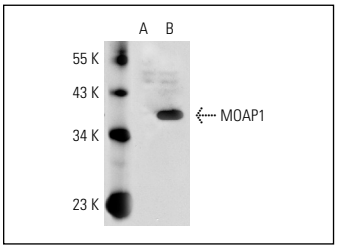
Suitable for use as control antibody for MOAP1 siRNA (h): sc-62629, MOAP1 siRNA (m): sc-62630, MOAP1 shRNA Plasmid (h): sc-62629-SH, MOAP1 shRNA Plasmid (m): sc-62630-SH, MOAP1 shRNA (h) Lentiviral Particles: sc-62629-V and MOAP1 shRNA (m) Lentiviral Particles: sc-62630-V.

Molecular Weight of MOAP1: 40 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MOAP1 (H-71): sc-67319. Western blot analysis of MOAP1 expression in non-transfected: sc-110760 (**A**) and human MOAP1 transfected: sc-112238 (**B**) 293 whole cell lysates.

RESEARCH USE

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