SANTA CRUZ BIOTECHNOLOGY, INC.

Mos (T-15): sc-87304

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The cellular homolog of the v-Mos oncogene, originally derived from the Moloney strain murine sarcoma virus, has now been isolated from several species including human, mouse, chicken and *Xenopus*. In each of these species, the c-Mos proto-oncogene locus consists of a single exon which encodes Mos, a serine/threonine protein kinase involved in the regulation of the meiotic cell cycle in vertebrate oöcytes. Mos function during oöcyte maturation is thought to be exerted through the stabilization or activation of the maturation promoting factor (MPF) complex. While the level of Mos expression is generally low in somatic cells, Mos is expressed at relatively high levels in germ cells. Mos can efficiently cause oncogenic transformation of somatic cells when ectopically expressed during the G_1 phase of the cell cycle. Mos activates MAPK, possibly through direct phosphorylation of the MAPKK MEK-1.

REFERENCES

1. Watson, R., et al. 1982. Human DNA sequence homologous to the transforming gen (mos) of Moloney murine sarcoma virus. Proc. Natl. Acad. Sci. USA 79: 4078-4082.
2. Schmidt, M., et al. 1988. Chicken homolog of the mos proto-oncogene. Mol. Cell. Biol. 8: 923-929.
3. Propst, F. and Vande Woude, G.F. 1985. Expression of c-mos proto-oncogene transcripts in mouse tissues. Nature 315: 516-518.
4. Okazaki, K. and Sagata, N. 1995. MAP kinase activation is essential for oncogenic transformation of NIH3T3 cells by Mos. Oncogene 10: 1149-1157.
5. Chen, M. and Cooper, J.A. 1995. Ser-3 is important for regulating Mos interaction with and stimulation of mitogen-activated protein kinase kinase. Mol. Cell. Biol. 15: 4727-4734.
6. Pham, C.D., et al. 1995. Characterization of MEK1 phosphorylation by the v-Mos protein. Oncogene 10: 1683-1688.

CHROMOSOMAL LOCATION

Genetic locus: MOS (human) mapping to 8q12.1; Mos (mouse) mapping to 4 A1.

SOURCE

Mos (T-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Mos of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87304 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

Mos (T-15) is recommended for detection of Mos of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Mos (T-15) is also recommended for detection of Mos in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Mos siRNA (h): sc-39112, Mos siRNA (m): sc-39113, Mos shRNA Plasmid (h): sc-39112-SH, Mos shRNA Plasmid (m): sc-39113-SH, Mos shRNA (h) Lentiviral Particles: sc-39112-V and Mos shRNA (m) Lentiviral Particles: sc-39113-V.

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) 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.

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.