# SANTA CRUZ BIOTECHNOLOGY, INC.

# Mos<sup>xe</sup> (S3.1): sc-53373



# 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<sub>1</sub> phase of the cell cycle. Mos AAPK, possibly through direct phosphorylation of the MAPKK MEK-1.

#### REFERENCES

- Klein, G., et al. 1981. The role of gene dosage and genetic transpositions in carcinogenesis. Nature 294: 313-318.
- 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.
- Propst, F., et al. 1985. Expression of c-Mos proto-oncogene transcripts in mouse tissues. Nature 315: 516-518.
- Schmidt, M., et al. 1988. Chicken homolog of the Mos proto-oncogene. Mol. Cell. Biol. 8: 923-929.
- Okazaki, K., et al. 1995. MAP kinase activation is essential for oncogenic transformation of NIH/3T3 cells by Mos. Oncogene 10: 1149-1157.
- 6. Chen, M., et al. 1995. Ser 3 is important for regulating Mos interaction with and stimulation of mitogen-activated protein kinase kinase. Mol. Cell. Biol.15: 4727-4734.
- 7. Pham, C.D., et al. 1995. Characterization of MEK1 phosphorylation by the v-Mos protein. Oncogene 10: 1683-1688.
- Robertson, S.C., et al. 1996. Identification of an autoinhibitory region in the activation loop of the Mos protein kinase. Mol. Cell. Biol. 16: 3472-3479.
- Mendez, R., et al. 2000. Phosphorylation of CPE binding factor by Eg2 regulates translation of c-Mos mRNA. Nature 404: 302-307.

#### SOURCE

Mos<sup>xe</sup> (S3.1) is a mouse monoclonal antibody raised against MOS fusion protein of *Xenopus laevis* origin.

# PRODUCT

Each vial contains 200  $\mu g$  IgG\_{2a} 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.

#### APPLICATIONS

Mos<sup>xe</sup> (S3.1) is recommended for detection of Mos p39 of *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Molecular Weight of Mosxe: 37 kDa.

# **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

# **SELECT PRODUCT CITATIONS**

- 1. Fan, Y.P., et al. 2018. Trimebutine promotes glioma cell apoptosis as a potential anti-tumor agent. Front. Pharmacol. 9: 664.
- Fan, Y., et al. 2018. Honokiol eliminates glioma/glioblastoma stem cell-like cells Via JAK-STAT3 signaling and inhibits tumor progression by targeting epidermal growth factor receptor. Cancers 11: 22.

# **RESEARCH USE**

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

# **PROTOCOLS**

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