SANTA CRUZ BIOTECHNOLOGY, INC.

# MIA2 (M-15): sc-160525

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Tumorigenesis is a process that is mediated by a network of membrane, cytosolic and nuclear associated factors, which regulate proliferation and cell-matrix interaction through signaling cascades. The phenotype of malignant melanomas *in vivo* depends on the global expression of stimulatory or inhibitory factors generated in both tumors cells and their environment. One such factor includes MIA2 (melanoma inhibitory activity 2), which is a 541 amino acid secreted protein that is highly expressed in hepatocytes and is considered a marker of hepatic fibrosis. Regulated by HNF-1 (hepatic nuclear factor 1), MIA2 is an inhibitor of hepatocellular carcinoma (HCC) growth and invasion, thereby acting as a tumour suppressor. MIA2 is a member of the MIA/OTOR family and contains one SH3 domain, which binds to proline-rich regions of a wide range of regulators. MIA2 exists as two alternatively spliced variants and is encoded by a gene located on human chromsome 14.

## REFERENCES


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3. Perez, R.P., et al. 2000. Expression of melanoma inhibitory activity in melanoma and nonmelanoma tissue specimens. Hum. Pathol. 31: 1381-1388.
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5. Stoll, R., et al. 2001. The extracellular human melanoma inhibitory activity (MIA) protein adopts an SH3 domain-like fold. EMBO J. 20: 340-349.
6. Bosserhoff, A.K., Moser, M., Schölmerich, J., Buettner, R. and Hellerbrand, C. 2003. Specific expression and regulation of the new melanoma inhibitory activity-related gene MIA2 in hepatocytes. J. Biol. Chem. 278: 15225-15231.
7. Bosserhoff, A.K., Moser, M. and Buettner, R. 2004. Characterization and expression pattern of the novel MIA homolog TANGO. Gene Expr. Patterns. 4: 473-479.
8. Hellerbrand, C., Bataille, F., Schlegel, J., Hartmann, A., Mühlbauer, M., Schölmerich, J., Büttner, R., Hofstädter, F. and Bosserhoff, A.K. 2005. *In situ* expression patterns of melanoma inhibitory activity 2 in healthy and diseased livers. Liver Int. 25: 357-366.
9. Hellerbrand, C., Amann, T., Schlegel, J., Wild, P., Bataille, F., Spruss, T., Hartmann, A. and Bosserhoff, A.K. 2008. The novel gene MIA2 acts as a tumour suppressor in hepatocellular carcinoma. Gut 57: 243-251.


## CHROMOSOMAL LOCATION

Genetic locus: Mia2 (mouse) mapping to 12 C1.

## STORAGE

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

## SOURCE

MIA2 (M-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MIA2 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-160525 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MIA2 (M-15) is recommended for detection of MIA2 of mouse and rat 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); non cross-reactive with MIA or MIA3.

Suitable for use as control antibody for MIA2 siRNA (m): sc-149418, MIA2 shRNA Plasmid (m): sc-149418-SH and MIA2 shRNA (m) Lentiviral Particles: sc-149418-V.

Molecular Weight of MIA2: 62 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.