

MIA3 (C-5): sc-393916

BACKGROUND

MIA3 (melanoma inhibitory activity family, member 3), also known as ARNT or TANGO, is a 1,907 amino acid single-pass type I membrane protein that localizes to the endoplasmic reticulum (ER) and contains one SH3 domain. Expressed in a wide variety of tissues with the exception of bone marrow and peripheral blood mononuclear cells, MIA3 is required for COL7A1 secretion and cargo loading at ER exit sites and may also regulate the release of other proteins from the ER. Multiple isoforms of MIA3 exist due to alternative splicing events. The gene encoding MIA3 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. *DNA Res.* 3: 321-329, 341.
2. Bosserhoff, A.K., et al. 2004. Characterization and expression pattern of the novel MIA homolog TANGO. *Gene Expr. Patterns* 4: 473-479.
3. Arndt, S. and Bosserhoff, A.K. 2006. TANGO is a tumor suppressor of malignant melanoma. *Int. J. Cancer* 119: 2812-2820.
4. Arndt, S., et al. 2007. Interactions of TANGO and leukocyte integrin CD11c/CD18 regulate the migration of human monocytes. *J. Leukoc. Biol.* 82: 1466-1472.

CHROMOSOMAL LOCATION

Genetic locus: MIA3 (human) mapping to 1q41.

SOURCE

MIA3 (C-5) is a mouse monoclonal antibody raised against amino acids 1391-1546 mapping within an internal region of MIA3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MIA3 (C-5) is available conjugated to agarose (sc-393916 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393916 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393916 PE), fluorescein (sc-393916 FITC), Alexa Fluor® 488 (sc-393916 AF488), Alexa Fluor® 546 (sc-393916 AF546), Alexa Fluor® 594 (sc-393916 AF594) or Alexa Fluor® 647 (sc-393916 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393916 AF680) or Alexa Fluor® 790 (sc-393916 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MIA3 (C-5) is recommended for detection of MIA3 of human origin by Western Blotting (starting dilution 1:100, 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 MIA3 siRNA (h): sc-78818, MIA3 shRNA Plasmid (h): sc-78818-SH and MIA3 shRNA (h) Lentiviral Particles: sc-78818-V.

Molecular Weight of MIA3: 214 kDa.

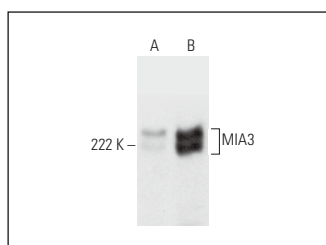
Positive Controls: Caki-1 cell lysate: sc-2224 or K-562 whole cell lysate: sc-2203.

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



MIA3 (C-5): sc-393916. Western blot analysis of MIA3 expression in Caki-1 (A) and K-562 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Hirata, Y., et al. 2022. ER-to-Golgi trafficking of procollagen III via conventional vesicular and tubular carriers. *Mol. Biol. Cell* 33: ar21.

STORAGE

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

RESEARCH USE

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