

# MISR II (D-9): sc-377413

## BACKGROUND

MISR II (anti-Müllerian hormone type-2 receptor, MIS type II receptor) is a 573 amino acid protein encoded by the human gene AMHR2. MISR II belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family, TGF $\beta$  receptor subfamily and contains one protein kinase domain. Upon ligand binding, MISR II forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. These type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate Smad transcriptional regulators. MISR II also acts as a receptor for anti-Müllerian hormone. Defects in AMHR2 are the cause of persistent Müllerian duct syndrome type 2 (PMDS-2). PMDS-2 is a form of male pseudohermaphroditism characterized by a failure of Müllerian duct regression in otherwise normal males.

## REFERENCES

1. Armendares, S., et al. 1973. Two male sibs with uterus and Fallopian tubes. A rare, probably inherited disorder. *Clin. Genet.* 4: 291-296.
2. Imbeaud, S., et al. 1995. Insensitivity to anti-Müllerian hormone due to a mutation in the human anti-Müllerian hormone receptor. *Nat. Genet.* 11: 382-388.
3. Mishina, Y., et al. 1996. Genetic analysis of the Müllerian-inhibiting substance signal transduction pathway in mammalian sexual differentiation. *Genes Dev.* 10: 2577-2587.
4. Imbeaud, S., et al. 1996. A 27 base-pair deletion of the anti-Müllerian type II receptor gene is the most common cause of the persistent Müllerian duct syndrome. *Hum. Mol. Genet.* 5: 1269-1277.
5. Kunieda, T., et al. 1998. The gene encoding anti-Müllerian hormone type 2 receptor maps to mouse chromosome 15. *Mamm. Genome* 9: 259-259.

## CHROMOSOMAL LOCATION

Genetic locus: AMHR2 (human) mapping to 12q13.13.

## SOURCE

MISR II (D-9) is a mouse monoclonal antibody raised against amino acids 1-150 mapping within an N-terminal extracellular domain of MISR II of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MISR II (D-9) is available conjugated to agarose (sc-377413 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377413 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377413 PE), fluorescein (sc-377413 FITC), Alexa Fluor<sup>®</sup> 488 (sc-377413 AF488), Alexa Fluor<sup>®</sup> 546 (sc-377413 AF546), Alexa Fluor<sup>®</sup> 594 (sc-377413 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-377413 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-377413 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-377413 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

MISR II (D-9) is recommended for detection of MISR II of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 MISR II siRNA (h): sc-62621, MISR II shRNA Plasmid (h): sc-62621-SH and MISR II shRNA (h) Lentiviral Particles: sc-62621-V.

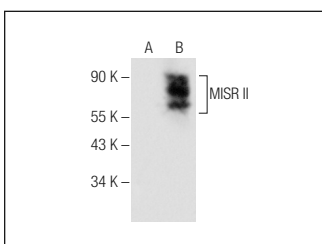
Molecular Weight of MISR II: 63 kDa.

Positive Controls: MISR II (h): 293T Lysate: sc-372823.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



MISR II (D-9): sc-377413. Western blot analysis of MISR II expression in non-transfected: sc-117752 (A) and human MISR II transfected: sc-372823 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Mazumder, S., et al. 2020. Immunotherapy of ovarian cancer with a monoclonal antibody specific for the extracellular domain of anti-Müllerian hormone receptor II. *Oncotarget* 11: 1894-1910.

## 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.