

# MESDC1 (Q-19): sc-243456

## BACKGROUND

MESDC1 (mesoderm development candidate 1) is a 362 amino acid protein encoded by a gene that maps to human chromosome 15q25.1. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and is about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

## REFERENCES

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- Wines, M.E., et al. 2001. Identification of mesoderm development (MESD) candidate genes by comparative mapping and genome sequence analysis. *Genomics* 72: 88-98.
- Li, Y., et al. 2006. Modulation of LRP6-mediated Wnt signaling by molecular chaperone MESD. *FEBS Lett.* 580: 5423-5428.
- Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. *JAAPA* 21: 21-25.
- Dan, B. 2009. Angelman syndrome: current understanding and research prospects. *Epilepsia* 50: 2331-2339.
- Ferrer-Bolufer, I., et al. 2009. Tyrosinemia type 1 and Angelman syndrome due to paternal uniparental isodisomy 15. *J. Inherit. Metab. Dis.* 32: S349-S353.
- Wawrzik, M., et al. 2010. The C15orf2 gene in the Prader-Willi syndrome region is subject to genomic imprinting and positive selection. *Neurogenetics* 11: 153-161.

## CHROMOSOMAL LOCATION

Genetic locus: MESDC1 (human) mapping to 15q25.1; *Mesdc1* (mouse) mapping to 7 D3.

## SOURCE

MESDC1 (Q-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MESDC1 of human 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-243456 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MESDC1 (Q-19) is recommended for detection of MESDC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with MESDC2.

MESDC1 (Q-19) is also recommended for detection of MESDC1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for MESDC1 siRNA (h): sc-90279, MESDC1 siRNA (m): sc-149370, MESDC1 shRNA Plasmid (h): sc-90279-SH, MESDC1 shRNA Plasmid (m): sc-149370-SH, MESDC1 shRNA (h) Lentiviral Particles: sc-90279-V and MESDC1 shRNA (m) Lentiviral Particles: sc-149370-V.

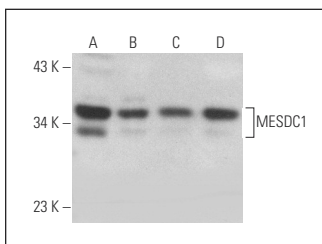
Molecular Weight of MESDC1: 38 kDa.

Positive Controls: MESDC1 (m): 293T Lysate: sc-127143, COLO 205 whole cell lysate: sc-364177 or human bladder extract: sc-363751.

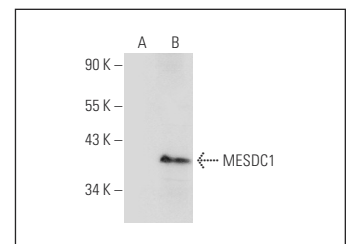
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MESDC1 (Q-19): sc-243456. Western blot analysis of MESDC1 expression in COLO 205 (A) and SK-MEL-28 (B) whole cell lysates and human eye (C) and human bladder (D) tissue extracts.



MESDC1 (Q-19): sc-243456. Western blot analysis of MESDC1 expression in non-transfected: sc-117752 (A) and mouse MESDC1 transfected: sc-127143 (B) 293T whole cell lysates.

## 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.