

Msx-1 (5D11): sc-517256

BACKGROUND

Msx homeobox genes encode for transcription factors that control morphogenesis and are expressed at sites of epithelial-mesenchymal interaction during embryogenesis, such as the tooth. Two of these genes, Msx-1 and Msx-2, are key factors for the development of tooth and craniofacial skeleton. Msx-1 also down-regulates a master gene of skeletal cells differentiation. Msx-1 and Msx-2 contribute to the initial patterning of dentition as well as playing a pivotal role in terminal cell differentiation. In addition, Msx-1 and Msx-2 are expressed in the epidermis, hair follicles and fibroblasts of the developing fetal skin. In adult skin, Msx-1 and Msx-2 expression is confined to epithelially derived structures. Msx-2 is detected as a diffuse cytoplasmic signal in fetal epidermis and portions of the hair follicle and dermis, but is localized to the nucleus in the adult epidermis. Msx-1 and Msx-2 are also expressed during critical developmental stages of neural tube and neural crest, suggesting that these genes play an important role in organogenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MSX1 (human) mapping to 4p16.2.

SOURCE

Msx-1 (5D11) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 16-243 of Msx-1 of human origin.

STORAGE

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

PROTOCOLS

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

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.

Msx-1 (5D11) is available conjugated to agarose (sc-517256 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-517256 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-517256 PE), fluorescein (sc-517256 FITC), Alexa Fluor[®] 488 (sc-517256 AF488), Alexa Fluor[®] 546 (sc-517256 AF546), Alexa Fluor[®] 594 (sc-517256 AF594) or Alexa Fluor[®] 647 (sc-517256 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-517256 AF680) or Alexa Fluor[®] 790 (sc-517256 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Msx-1 (5D11) is recommended for detection of Msx-1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Msx-1 siRNA (h): sc-43945, Msx-1 shRNA Plasmid (h): sc-43945-SH and Msx-1 shRNA (h) Lentiviral Particles: sc-43945-V.

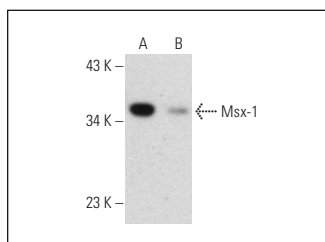
Molecular Weight of Msx-1: 31 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or SW480 nuclear extract: sc-2155.

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).

DATA



Msx-1 (5D11): sc-517256. Western blot analysis of Msx-1 expression in Jurkat (A) and SW480 (B) nuclear extracts.

RESEARCH USE

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