

Myosin XVIIIa (H-10): sc-365328

BACKGROUND

Myosin XVIIIa, also designated MYO18A, MAJN, MYSPDZ, surfactant protein A receptor (SPR210) or TGF β 1-induced antiapoptotic factor 1, is a TGF β 1-induced antiapoptotic factor known to inhibit the cytotoxic effects of TNF α on mouse fibroblasts. Two isoforms of mouse Myosin XVIIIa, designated MysPDZ α and MysPDZ β , have been identified. MysPDZ α consists of a KE-rich region, an N-terminal PDZ domain, and a prevalent myosin homologous head region, neck (with one IQ motif) and coiled-coil tail. The MysPDZ β isoform lacks the KE-rich region and PDZ domain. MysPDZ α is present in most tissues and is known to co-localize with the ER-Golgi complex and with membrane ruffles and filopodia. MysPDZ β is expressed specifically in hematopoietic tissues and cell lines and shows dispersed localization in the cytoplasm.

REFERENCES

- Mori, K., et al. 2003. Genome structure and differential expression of two isoforms of a novel PDZ-containing Myosin (MysPDZ) (Myo18A). *J. Biochem.* 133: 405-413.
- Cross, M., et al. 2004. A novel 110 kDa form of Myosin XVIIIa (MysPDZ) is tyrosine-phosphorylated after colony-stimulating factor-1 receptor signalling. *Biochem. J.* 380: 243-253.
- Yang, C.H., et al. 2005. Identification of the surfactant protein A receptor 210 as the unconventional Myosin XVIIIa. *J. Biol. Chem.* 280: 34447-34457.

CHROMOSOMAL LOCATION

Genetic locus: MYO18A (human) mapping to 17q11.2; Myo18a (mouse) mapping to 11 B5.

SOURCE

Myosin XVIIIa (H-10) is a mouse monoclonal antibody raised against amino acids 1656-1780 mapping within an internal region of Myosin XVIIIa of human origin.

PRODUCT

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

Myosin XVIIIa (H-10) is available conjugated to agarose (sc-365328 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365328 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365328 PE), fluorescein (sc-365328 FITC), Alexa Fluor[®] 488 (sc-365328 AF488), Alexa Fluor[®] 546 (sc-365328 AF546), Alexa Fluor[®] 594 (sc-365328 AF594) or Alexa Fluor[®] 647 (sc-365328 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365328 AF680) or Alexa Fluor[®] 790 (sc-365328 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

Myosin XVIIIa (H-10) is recommended for detection of Myosin XVIIIa isoforms 1-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 Myosin XVIIIa siRNA (h): sc-106272, Myosin XVIIIa siRNA (m): sc-61129, Myosin XVIIIa siRNA (r): sc-270493, Myosin XVIIIa shRNA Plasmid (h): sc-106272-SH, Myosin XVIIIa shRNA Plasmid (m): sc-61129-SH, Myosin XVIIIa shRNA Plasmid (r): sc-270493-SH, Myosin XVIIIa shRNA (h) Lentiviral Particles: sc-106272-V, Myosin XVIIIa shRNA (m) Lentiviral Particles: sc-61129-V and Myosin XVIIIa shRNA (r) Lentiviral Particles: sc-270493-V.

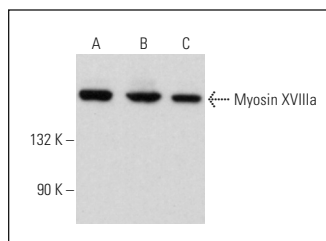
Molecular Weight of MysPDZ α /MysPDZ β : 230/190 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 cell lysate: sc-2233 or K-562 whole cell lysate: sc-2203.

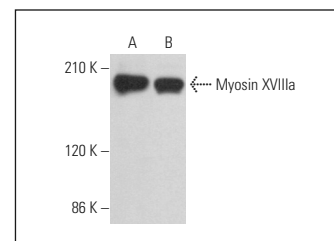
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



Myosin XVIIIa (H-10): sc-365328. Western blot analysis of Myosin XVIIIa expression in Jurkat (A), MOLT-4 (B) and K-562 (C) whole cell lysates.



Myosin XVIIIa (H-10): sc-365328. Western blot analysis of Myosin XVIIIa expression in Jurkat (A) and K-562 (B) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

- Jiu, Y., et al. 2019. Myosin-18B promotes the assembly of Myosin II stacks for maturation of contractile actomyosin bundles. *Curr. Biol.* 29: 81-92.e5.
- Cao, C., et al. 2021. Myosin18B predicts favorable prognosis of cutaneous squamous-cell carcinoma. *Genes Genomics* 43: 371-378.

RESEARCH USE

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