SANTA CRUZ BIOTECHNOLOGY, INC.

Mi2-β (F-3): sc-365638

BACKGROUND

In the intact cell, DNA closely associates with histones and other nuclear proteins to form chromatin. The remodeling of chromatin is believed to be a critical component of transcriptional regulation and a major source of this remodeling is brought about by the acetylation of nucleosomal histones. Acetylation of lysine residues in the amino-terminal tail domain of histone results in an allosteric change in the nucleosomal conformation and an increased accessibility to transcription factors by DNA. Conversely, the deacetylation of histones is associated with transcriptional silencing. Chromatin structure alteration may be brought about by the action of ATP-dependent multiprotein complexes. One such complex is the mSin3 corepressor complex, which contains mSin3, the histone deacetylases HDAC1 and HDAC2, the associated proteins SAP 30 and SAP 18, and the autoantigens Mi2-α and Mi2-β.

CHROMOSOMAL LOCATION

Genetic locus: CHD4 (human) mapping to 12p13.31; Chd4 (mouse) mapping to 6 F2.

SOURCE

Mi2-β (F-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1887-1909 at the C-terminus of Mi2-β of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365638 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Mi2-β (F-3) is recommended for detection of Mi2-β of mouse, rat and 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).

Mi2-β (F-3) is also recommended for detection of Mi2-β in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Mi2-β siRNA (h): sc-37953, Mi2-β siRNA (m): sc-37954, Mi2-β shRNA Plasmid (h): sc-37953-SH, Mi2-β shRNA Plasmid (m): sc-37954-SH, Mi2-β shRNA (h) Lentiviral Particles: sc-37953-V and Mi2-β shRNA (m) Lentiviral Particles: sc-37954-V.

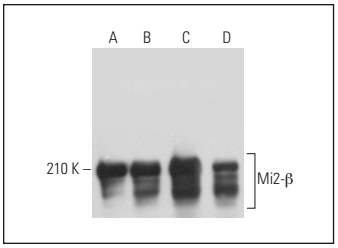
Molecular Weight of Mi2-β: 218 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, NAMALWA cell lysate: sc-2234 or Ramos cell lysate: sc-2216.

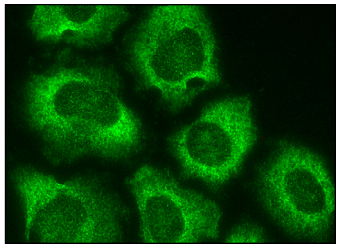
RECOMMENDED SUPPORT REAGENTS

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



Mi2-β (F-3): sc-365638. Western blot analysis of Mi2-β expression in Raji (**A**), NAMALWA (**B**), Ramos (**C**) and IB4 (**D**) whole cell lysates.



Mi2-β (F-3): sc-365638. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Buddaseth, S., et al. 2013. Dysregulation of cell cycle control caused by overexpression of the oncogene pp32r1 (ANP32C) and the Tyr>His mutant pp32r1Y140H. Biochim. Biophys. Acta 1833: 1212-1221.
2. Ting, X., et al. 2019. USP11 acts as a histone deubiquitinase functioning in chromatin reorganization during DNA repair. Nucleic Acids Res. 47: 9721-9740.

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.