**BACKGROUND**

Melatonin (Mel), a hormone secreted by the pineal gland, is expressed at night in response to the circadian clock. Melatonin is thought to be involved in regulating reproductive physiological development and the progression of sexual maturation, and it is also thought to play a role in tumorigenesis. The melatonin receptors, MEL-1A-R and MEL-1B-R, are members of the super-family of guanine nucleotide-binding regulatory protein G protein-coupled receptors. Signaling through the melatonin receptors inhibits adenylate cyclase and stimulates phospholipase C upon activation of pertussis toxin (PTX)-sensitive G proteins. MEL-1A-R may be involved in pacing the biological clock. However, both MEL-1A-R and MEL-1B-R are implicated in controlling cellular growth in response to melatonin.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MNTNR1A (human) mapping to 4q35.2; Mtnr1a (mouse) Chr 16; Mtnr1a (mouse) Chr 3.

**SOURCE**

MEL-1A-R (B-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 7-26 at the N-terminus of MEL-1A-R of human origin.

**PRODUCT**

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

MEL-1A-R (B-10) is available conjugated to agarose (sc-390328 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390328 HRP), 200 µg/ml, for WB, IHC, and Western blotting; to ProteinA/G PLUS-Agarose: sc-2003; to 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-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. (4) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). (5) Immunofluorescence: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP: sc-516140 (dilution range: 1:50-1:2000) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**APPLICATIONS**

MEL-1A-R (B-10) is recommended for detection of MEL-1A-R 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).

Suitable for use as control antibody for MEL-1A-R siRNA (h): sc-35917, MEL-1A-R siRNA (m): sc-40113, MEL-1A-R shRNA Plasmid (h): sc-35917-SH, MEL-1A-R shRNA Plasmid (m): sc-40113-SH, MEL-1A-R shRNA (m) Lentiviral Particles: sc-35917-V and MEL-1A-R shRNA (m) Lentiviral Particles: sc-40113-V.

Molecular Weight of MEL-1A-R: 37 kDa.

Molecular Weight of glycosylated MEL-1A-R: 60 kDa.

Positive Controls: A549 cell lysate: sc-2413, Hepl G2 cell lysate: sc-2227 or SK-N-SH cell lysate: sc-2410.

**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-516140 (dilution range: 1:50-1:2000) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

MEL-1A-R (B-10) HR: sc-390328 HRP. Direct western blot analysis of MEL-1A-R expression in Jurkat (A), SK-N-SH (B), N93/T3 (C), IMR-32 (D) and H4 (E) whole cell lysates and mouse brain tissue extract (F).

MEL-1A-R (B-10) sc-390328. Western blot analysis of MEL-1A-R expression in Hep G2 (A), A549 (B), ACHN (C) and Calu-1 (D) 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.

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