

# MEL-1A-R (R-18): sc-13186

## 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 superfamily of guanine nucleotide-binding regulatory protein G protein-coupled receptors. Signaling through the melatonin receptors inhibits adenylate cyclase and stimulates phospholipase C $\beta$  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.

## CHROMOSOMAL LOCATION

Genetic locus: MTNR1A (human) mapping to 4q35.2; Mtnr1a (mouse) mapping to 8 B1.1.

## SOURCE

MEL-1A-R (R-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MEL-1A-R of rat origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13186 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MEL-1A-R (R-18) is recommended for detection of MEL-1A-R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

MEL-1A-R (R-18) is also recommended for detection of MEL-1A-R in additional species, including bovine and porcine.

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 (h) 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: SK-N-SH cell lysate: sc-2410 or IMR-32 cell lysate: sc-2409.

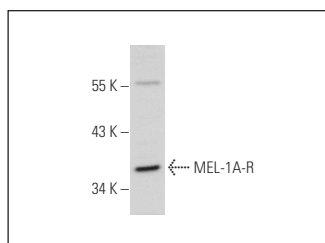
## STORAGE

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.

## DATA



MEL-1A-R (R-18): sc-13186. Western blot analysis of MEL-1A-R expression in IMR-32 whole cell lysate.

## SELECT PRODUCT CITATIONS

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- Lyssenko, V., et al. 2009. Common variant in MTNR1B associated with increased risk of type 2 diabetes and impaired early Insulin secretion. *Nat. Genet.* 41: 82-88.
- Zhao, W.J., et al. 2010. Melatonin potentiates glycine currents through a PLC/PKC signalling pathway in rat retinal ganglion cells. *J. Physiol.* 588: 2605-2619.
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- Ahmad, R. and Haldar, C. 2010. Melatonin and androgen receptor expression interplay modulates cell-mediated immunity in tropical rodent *Funambulus pennanti*: an *in-vivo* and *in-vitro* study. *Scand. J. Immunol.* 71: 420-430.
- Gonzalez, A., et al. 2011. Melatonin reduces pancreatic tumor cell viability by altering mitochondrial physiology. *J. Pineal Res.* 50: 250-260.
- Nagorny, C.L., et al. 2011. Distribution of melatonin receptors in murine pancreatic islets. *J. Pineal Res.* 50: 412-417.
- Kharwar, R.K., et al. 2011. Photoperiod regulates lung-associated immunological parameters and melatonin receptor (Mel1a and Mel1b) in lungs of a tropical bird, *Perdicula asiatica*. *Photochem. Photobiol.* 87: 427-434.

**MONOS**  
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Try **MEL-1A-R (B-10): sc-390328** or **MEL-1A/B-R (B-8): sc-398788**, our highly recommended monoclonal alternatives to MEL-1A-R (R-18).