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# MTNR1A Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9283c

## Product Information

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| **Application** | WB, FC, E |
| **Primary Accession** | P48039 |
| **Reactivity** | Human, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB23653 |
| **Calculated MW** | 39375 |
| **Antigen Region** | 209-239 |

## Additional Information

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| **Gene ID** | 4543 |
| **Other Names** | Melatonin receptor type 1A, Mel-1A-R, Mel1a receptor, MTNR1A |
| **Target/Specificity** | This MTNR1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 209-239 amino acids from the Central region of human MTNR1A. |
| **Dilution** | WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | MTNR1A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | MTNR1A |
| **Function** | High affinity receptor for melatonin. Likely to mediate the reproductive and circadian actions of melatonin. The activity of this receptor is mediated by pertussis toxin sensitive G proteins that inhibit adenylate cyclase activity. Possibly involved in sleep induction, by melatonin activation of the potassium channel KCNMA1/BK and the dissociation of G-beta and G-gamma subunits, |

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| | thereby decreasing synaptic transmission (By similarity). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein. |
| **Tissue Location** | Expressed in hypophyseal pars tuberalis and hypothalamic suprachiasmatic nuclei (SCN). Hippocampus |

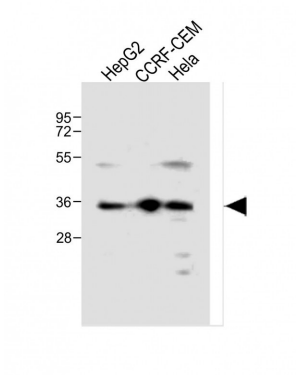
## Background

MTNR1A encodes one of two high affinity forms of a receptor for melatonin, the primary hormone secreted by the pineal gland. This receptor is a G-protein coupled, 7-transmembrane receptor that is responsible for melatonin effects on mammalian circadian rhythm and reproductive alterations affected by day length. The receptor is an integral membrane protein that is readily detectable and localized to two specific regions of the brain. The hypothalamic suprachiasmatic nucleus appears to be involved in circadian rhythm while the hypophysial pars tuberalis may be responsible for the reproductive effects of melatonin.

## References

Adi,N., et.al., Med. Sci. Monit. 16 (2), BR61-BR67 (2010)
Hill,S.M., et.al., Integr Cancer Ther 8 (4), 337-346 (2009)
Lai,L., et.al., Breast Cancer Res. Treat. 118 (2), 293-305 (2009)

## Images




All lanes : Anti-MTNR1A Antibody (Center) at 1:500 dilution Lane 1: HepG2 whole cell lysate Lane 2: CCRF-CEM whole cell lysate Lane 3: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.