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Product Information

Magic™ Membrane Protein Human MTNR1A (Melatonin receptor 1A)

Cat. No.: **MP0025F**
This product is for research use only and is not intended for diagnostic use.

High affinity receptor for melatonin. Likely to mediates 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.

Product Specifications

Host Species
Human

Target Protein
MTNR1A

Protein Length
Full Length

Protein Class
GPCR

Molecular Weight
40 kDa

TMD
7

Sequence
MQGNGSALPNASQPVLRGDGARPSWLASALACVLIFTIVVDILGNLLVILSVYRNKKLRN
AGNIFVVSLAVADLVVAIYPYPLVLMSIFNNGWNLGYLHCQVSGFLMGLSVIGSIFNITG
IAINRYCYICHSLKYDKLYSSKNSLCYVLLIWLLTLAAVLPNLRAGTLQYDPRIYSCTFA
QSVSSAYTIAVVVFHFLVPMIIVIFCYLRIWILVLQVRQRVKPDRKPKLKPQDFRNFVTM
FVVFVLFAICWAPLNFIGLAVASDPASMVPRIPEWLFVASYYMAYFNSCLNAIIYGLLNQ
NFRKEYRRIIVSLCTARVFFVDSSNDVADRVKWKPSPLMTNNNVVKVDSV

Product Description

Activity
To be tested

Application
Screening & display technologies

Expression Systems

Cell-free expression system in the presence of lipid vesicles

Tag

Histidine tag fused to the N-terminal end of the protein

Protein Format

Proteoliposome

Form

Powder

Purification

Sucrose gradient

Purity

>50% by SDS-Page and Coomassie Blue staining

Buffer

Tris 50mM, pH 7.5

Storage

Store at +4°C for up to one week or several months at -80°C

Target

Target Protein

MTNR1A

Full Name

Melatonin receptor 1A

Introduction

This gene 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.

Alternative Names

MT1, MEL-1A-R

Gene ID

4543

UniProt ID

P48039

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