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Product Information

MemDX™ Membrane Protein Human OPN4 (Opsin 4) Full Length

Cat. No.: **MPC0337K**
This product is for research use only and is not intended for diagnostic use.

This product is a 52.6 kDa Human OPN4 membrane protein expressed in Baculovirus/Insect expression system. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species
Human

Target Protein
OPN4

Protein Length
Full length

Protein Class
GPCR

Molecular Weight
52.6 kDa

TMD
7

Sequence
MNPPSGPRVPPSPTQEPSCMATPAPPSWWDSSQSSISSLGRLPSISPTAP
GTWAAAWVPLPTVDVPDHAHYTLGTVILLVGLTGMLGNLTVIYTFCRSRS
LRTPANMFIINLAVSDFLMSFTQAPVFFTSSLYKQWLFGETGCEFYAFCG
ALFGISSMITLTAIALDRYLVITRPLATFGVASKRRAAFVLLGVWLYALA
WSLPPFFGWSAYVPEGLLTSCSWDYMSFTPAVRAYTMLLCCFVFFLPLLI
IIYCYIFIFRAIRETGRALQTFGACKGNGESLWQRQRLQSECKMAKIMLL
VILLFVLSWAPYSAVALVAFAGYAHVLTPYMSSVPAVIAKASAIHNPIIY
AITHPKYRVAIAQHLPCLGVLLGVSRRHSRPYPSYRSTHRSTLTSHTSNL
SWISIRRRQESLGSESEVGWTHMEAAAVWGAAQQANGRSLYGQGLEDLEA
KAPPRPQGHEAETPGKTKGLIPSQDPRM

Product Description

Expression Systems
Baculovirus/Insect expression system

Tag

Based on specific requirements

Protein Format

Detergent or based on specific requirements

Form

Liquid

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

Target

Target Protein

OPN4

Full Name

Opsin 4

Introduction

Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. This gene encodes a photoreceptive opsin protein that is expressed within the ganglion and amacrine cell layers of the retina. In mouse, retinal ganglion cell axons expressing this gene projected to the suprachiasmatic nucleus and other brain nuclei involved in circadian photoentrainment. In mouse, this protein is coupled to a transient receptor potential (TRP) ion channel through a G protein signaling pathway and produces a physiologic light response via membrane depolarization and increased intracellular calcium. The protein functions as a sensory photopigment and may also have photoisomerase activity. Experiments with knockout mice indicate that this gene attenuates, but does not abolish, photoentrainment. Alternative splicing results in multiple transcript variants encoding different isoforms.

Alternative Names

MOP; melanopsin; OPN4; Opsin 4

Gene ID

94233

UniProt ID

Q9UHM6

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