Medium-Wave-Sensitive Opsin 1 (OPN1MW) ELISA Kit for Monkey

PRODUCT OVERVIEW

Product Name	Medium-wave-sensitive opsin 1 (OPN1MW), ELISA Kit
Full Product Name	Monkey Medium-wave-sensitive opsin 1 (OPN1MW) ELISA Kit
Product Gene Name	OPN1MW elisa kit
Species Reactivity	Monkey
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	40,584 Da
OMIM	303800
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for OPN1MW elisa kit	MBS7205153 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Medium-wave-sensitive opsin 1 (OPN1MW) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing OPN1MW. The ELISA analytical biochemical technique of the MBS7205153 kit is based on OPN1MW antibody-OPN1MW antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect OPN1MW antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, OPN1MW. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of OPN1MW elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OPN1MW. It may not necessarily be applicable to this product.

NCBI GI #	4503965
NCBI GeneID	2652
NCBI Accession #	NP_000504.1
UniProt Related Accession #	P04001
GenBank Nucleotide #	NM_000513.2
NCBI Official Full Name	medium-wave-sensitive opsin 1
NCBI Official Synonym Full Names	opsin 1 (cone pigments), medium-wave-sensitive
NCBI Official Symbol	OPN1MW
NCBI Official Synonym Symbols	CBD; GCP; GOP; CBBM; COD5; OPN1MW1
UniProt Protein Name	Medium-wave-sensitive opsin 1
UniProt Synonym Protein Names	Green cone photoreceptor pigment; Green-sensitive opsin; GOP

Protein Family	Medium-wave-sensitive opsin
UniProt Gene Name	OPN1MW
UniProt Synonym Gene Names	GCP **OPN1MW2**; GOP
UniProt Entry Name	OPSG_HUMAN
NCBI Protein Information	medium-wave-sensitive opsin 1; green cone pigment; green-sensitive opsin; photopigment apoprotein; cone dystrophy 5 (X-linked); green cone photoreceptor pigment
NCBI Summary for OPN1MW	This gene encodes for a light absorbing visual pigment of the opsin gene family. The encoded protein is called green cone photopigment or medium-wavelength sensitive opsin. Opsins are G-protein coupled receptors with seven transmembrane domains, an N-terminal extracellular domain, and a C-terminal cytoplasmic domain. The long-wavelength opsin gene and multiple copies of the medium-wavelength opsin gene are tandemly arrayed on the X chromosome and frequent unequal recombination and gene conversion may occur between these sequences. X chromosomes may have fusions of the medium- and long-wavelength opsin genes or may have more than one copy of these genes. Defects in this gene are the cause of deutanopic colorblindness. [provided by RefSeq, Mar 2009]
UniProt Comments for OPN1MW	OPN1MW: Visual pigments are the light-absorbing molecules that mediate vision. They consist of an apoprotein, opsin, covalently linked to cis-retinal. Defects in OPN1MW are the cause of partial colorblindness deutan series (CBD); also known as deuteranopia. Defects in OPN1MW are a cause of blue cone monochromacy (BCM). A rare X-linked congenital stationary cone dysfunction syndrome characterized by the absence of functional long wavelength-sensitive and medium wavelength-sensitive cones in the retina. Color discrimination is severely impaired from birth, and vision is derived from the remaining preserved blue (S) cones and rod photoreceptors. BCM typically presents with reduced visual acuity, pendular nystagmus, and photophobia. Patients often have myopia. Defects in OPN1MW are a cause of cone dystrophy type 5 (COD5). A X-linked cone dystrophy. Cone dystrophies are retinal dystrophies characterized by progressive degeneration of the cone photoreceptors with preservation of rod function, as indicated by electroretinogram. However, some rod involvement may be present in some cone dystrophies, particularly at late stage. Affected individuals suffer from photophobia, loss of visual acuity, color vision and central visual field. Another sign is the absence of macular lesions for many years. Cone dystrophies are distinguished from the cone-rod dystrophies in which some loss of peripheral vision also occurs. Belongs to the G-protein coupled receptor 1 family. Opsin subfamily. Protein type: Receptor, GPCR; GPCR, family 1; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: Xq28 Cellular Component: integral to plasma membrane; plasma membrane Molecular Function: G-protein coupled receptor activity; photoreceptor activity Biological Process: positive regulation of cytokinesis; G-protein coupled receptor protein signaling pathway; phototransduction, visible light; visual perception; retinoid metabolic process; protein-chromophore linkage Disease: Blue Cone Monochromacy; Colorblindness, Partial, Deutan Series
Research Articles on OPN1MW	**1.** Identification of one single red-green OPN1LW/MW hybrid gene harboring a point mutation that associates with blue cone monochromatism.
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