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## Datasheet for ABIN3303216 Human OPN1MW2 cDNA Clone in Mammalian Expression Vector (Myc-DYKDDDDK Tag)

#### Overview

Quantity:	10 µg
Gene:	OPN1MW2
Species:	Human
Insert:	cDNA
Vector:	Mammalian Expression Vector
Application:	Protein Expression (PExp)

#### Product Details

Purpose:	Untagged full-length cDNA clone from Human OPN1MW2 is ideal for over-expression of native protein for functional studies.
Brand:	TrueClones®
Vector Backbone:	pCMV6-Entry
Promoter:	Enhanced CMV Promoter
Selectable Marker:	Neomycin
Bacterial Resistance:	Kanamycin
Expression Type:	Transient
Specificity:	With the native stop codon at the end of the ORF the C-terminal Myc-DDK tag in the vector won't be expressed.
Characteristics:	<ul> <li>These cDNA clones are isolated from full-length cDNA libraries and usually contain the coding sequence as well as the untranslated regions (UTRs) of the mRNA transcript appropriate to the library from which they were isolated.</li> <li>These cDNA clones are ideal for over-expression of native proteins for functional studies. Provided as 10 µg transfection-ready plasmids.</li> </ul>

#### Product Details

	• Every lot of primer is tested to provide clean sequencing of cDNA clones.
Purification:	The DNAs were purified using PowerPrep HP Plasmid isolation kits for transfection ready plasmids.
Sequencing Primer:	VP1.5 (forward) 5'GGACTTTCCAAAATGTCG 3', XL39 (reverse) 5'ATTAGGACAAGGCTGGTGGG 3'
Components:	<ul> <li>The cDNA clone is shipped in a 2-D bar-coded Matrix tube as dried plasmid DNA.</li> <li>The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.</li> </ul>

### Target Details

Gene:	OPN1MW2
Alternative Name:	OPN1MW2 (OPN1MW2 Products)
Background:	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].
NCBI Accession:	NM_001048181, NP_001041646
Application Details	

Restrictions:

For Research Use only

#### Handling

Format:	Lyophilized
Storage:	RT,-20 °C
Storage Comment:	The lyophilized plasmid is stable for up to one year when stored at ambient temperature.
	Following dissolution in 100 $\mu$ L dH2O, store at -20 °C. Lyophilized primers are stable for up to

	one year when stored at ambient temperature. Following dissolution in 10 $\mu L$ dH2O, store at -20 $^{\circ}\text{C}.$
Expiry Date:	12 months
Publications	
Product cited in:	Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, ( 1991)