

## Product datasheet for **MG222042**

### Cep290 (NM\_146009) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cep290 (NM_146009) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cep290
Synonyms:	b2b1454Clo; b2b1752Clo; BC004690; Nphp6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222042 representing NM_146009 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCACCTAATAAAGTGAAAGAATTAATCAAAGTTGATCCAGATGACCTGCCACGGCAAGAAGAGT  
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ATAGTTTCCCTATTTAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG222042 representing NM\_146009  
 Red=Cloning site Green=Tags(s)

MPPNIKWKELIKVDPDDLPRQEELADKLLISLSKVEVNELKNEHQENMIHLFRITQSLMKMKAQEVELAL  
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 EQFGFELPSPLAASEHSEDGESPHSFPIY

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI



<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_146009.3</a>
<b>RefSeq Size:</b>	8006 bp
<b>RefSeq ORF:</b>	7440 bp
<b>Locus ID:</b>	216274
<b>UniProt ID:</b>	<a href="#">Q6A078</a>
<b>Cytogenetics:</b>	10 51.48 cM
<b>Gene Summary:</b>	Involved in early and late steps in cilia formation (PubMed:21565611). Its association with CCP110 is required for inhibition of primary cilia formation by CCP110 (By similarity). May play a role in early ciliogenesis in the disappearance of centriolar satellites and in the transition of primary ciliary vesicles (PCVs) to capped ciliary vesicles (CCVs). Required for the centrosomal recruitment of RAB8A and for the targeting of centriole satellite proteins to centrosomes such as of PCM1 (By similarity). Required for the correct localization of ciliary and phototransduction proteins in retinal photoreceptor cells; may play a role in ciliary transport processes (PubMed:16632484). Required for efficient recruitment of RAB8A to primary cilium (By similarity). In the ciliary transition zone is part of the tectonic-like complex (also named B9 complex) which is required for tissue-specific ciliogenesis and may regulate ciliary membrane composition (PubMed:21725307). Involved in regulation of the BBSome complex integrity, specifically for presence of BBS2, BBS5 and BBS8/TTC8 in the complex, and in ciliary targeting of selected BBSome cargos. May play a role in controlling entry of the BBSome complex to cilia possibly implicating IQCB1/NPHP5 (By similarity). Activates ATF4-mediated transcription (By similarity).[UniProtKB/Swiss-Prot Function]