

## Product datasheet for **RG209743**

### EPM2A (NM\_005670) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EPM2A (NM_005670) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EPM2A
Synonyms:	EPM2; MELF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209743 representing NM_005670 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGCTTCCGCTTTGGGGTGGTGGTCCACCCCGGTGGCCGGCGCCAGGCCGGAGCTGCTGGTGGTGG  
GGTCGCGGCCCGAGCTGGGGCGTTGGGAGCCGCGCGGTGCCGTCCGCTGAGGCCGGCCGGCACCAGCGGC  
GGGCGACGGGGCCCTGGCGCTGCAGGAGCCGGCCGTGGCTCGGGGAGGTGGAGCTGGCGGCCGAGGAG  
GCGGCGCAGGACGGGGCGGAGCCGGCCCGGTGGACACGTTCTGGTACAAGTTCCTGAAGCGGGAGCCGG  
GAGGAGAGCTCTCTGGGAAGGCAATGGACCTCATCATGACCGTTGCTGTACTTACAATGAAACAACCTT  
GGTGGATGGTGTATTGTCTCCAATAGGACTGATTGAGGCCACTGGACACACCAATGAAATGAAG  
CACACAACAGACTTCTATTTTAATATTGCAGGCCACCAAGCCATGCATTATTCAAGAATTCTACCAATA  
TCTGGCTGGGTAGCTGCCCTCGTCAGGTGGAACATGTAACCATCAAAGCATGAATTGGGGATTAC  
AGCTGTAATGAATTTCAAGACTGAATGGGATATTGTACAGAATTCCTCAGGCTGTAACCGCTACCCAGAG  
CCCATGACTCCAGACTATGATTAACATATAGGGAAGAAGGCTTGGCCTACATCTGGATGCCAACAC  
CAGATATGAGCACCGAAGCCGAGTACAGATGCTGCCCGAGCGGTGTGCCTGCTGCATGCGCTGCTGGA  
GAAGGGACACATCGTGTACGTGCACTGCAACGCTGGGGTGGGCCGCTCAACCGCGGCTGTCTGCGGCTGG  
CTCCAGTATGTGATGGGCTGGAATCTGAGGAAGGTGCAGTATTTCTCATGGCCAAGAGGCCGCTGTCT  
ACATTGACGAAGAGGCCTTGGCCCGGCCACAAGAAGATTTTTCCAGAAATTTGGGAAGGTTCTGTTCTTC  
TGTGTAGCCTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG209743 representing NM\_005670  
Red=Cloning site Green=Tags(s)

MRFRFGVVVPPAVAGARPELLVVGSRPELGRWEPRGAVRLRPAGTAAGDGALALQEPGLWLGEVELAAEE  
 AAQDGAEPGRVDTFWYKFLKREPGGELSWEGNGPHHDCCTYNENNLVDGVYCLPIGHWIEATGHTNEMK  
 HTTDFYFNIAGHQAMHSYRILPNIWLGSCPRQVEHVTIKLKHELGITAVMNFKTEWDIVQNSSGCNRYPE  
 PMTPDPTMIKLYREEGLAYIWMPTPDMSTEGRVQMLPQAVCLLHALLEKGHIVYVHCNAGVGRSTAAVCGW  
 LQYVMGWNLKRVQYFLMAKRPAVYIDEEALARAQEDFFQKFGKVRSSVCSL

TRTRPLE - GFP Tag - V

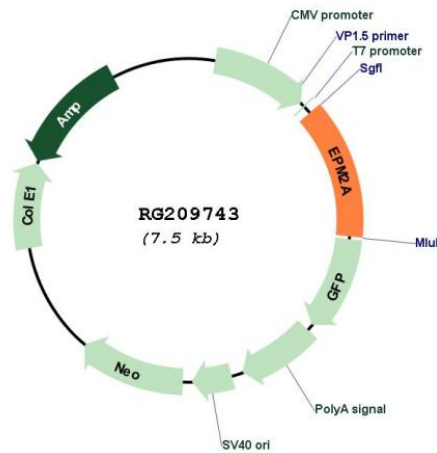
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_005670

**ORF Size:** 993 bp

<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_005670.3</a> , <a href="#">NP_005661.1</a>
<b>RefSeq Size:</b>	3474 bp
<b>RefSeq ORF:</b>	996 bp
<b>Locus ID:</b>	7957
<b>UniProt ID:</b>	<a href="#">O95278</a>
<b>Cytogenetics:</b>	6q24.3
<b>Domains:</b>	DSPc
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>Gene Summary:</b>	This gene encodes a dual-specificity phosphatase and may be involved in the regulation of glycogen metabolism. The protein acts on complex carbohydrates to prevent glycogen hyperphosphorylation, thus avoiding the formation of insoluble aggregates. Loss-of-function mutations in this gene have been associated with Lafora disease, a rare, adult-onset recessive neurodegenerative disease, which results in myoclonus epilepsy and usually results in death several years after the onset of symptoms. The disease is characterized by the accumulation of insoluble particles called Lafora bodies, which are derived from glycogen. [provided by RefSeq, Jan 2018]