

## Product datasheet for MR216699

### Rspo2 (NM\_172815) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rspo2 (NM_172815) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rspo2
Synonyms:	2610028F08Rik; AA673245; D430027K22; ftIs
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR216699 representing NM_172815 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGTTTTTGCCTCTTCTCATTGCCCCTCATCATTCTGAACTGTATGGATTACAGCCAGTGCCAAGGCA  
ACCGATGGAGACGCAATAAGCGAGCTAGTTATGTATCAAATCCCATTTGCAAGGGTTGTTTGTCTTGTTCC  
GAAGGACAATGGTTGCAGCCGATGTCAACAGAAGTTGTTCTTTTTCCTTGAAGAGAAGGAATGCGTCAG  
TATGGAGAGTGCCTGCATTCTGCCATCAGGGTATTATGGACACCGAGCCCAGATATGAACAGATGTG  
CACGATGCAGAATAGAAAAGTGTATTCTTGTCTTAGCAAAGACTTTTGTACGAAGTGCAAAGTAGGCTT  
TTATTTGCATAGAGGCCGCTGCTTTGATGAATGTCCAGATGGTTTTGCACCGTTAGATGAGACTATGGAA  
TGTGTAGAAGTTGTGAAGTTGGTCATTGGAGCGAATGGGGAACGTGTAGCAGAAAACAACCGCACGTGTG  
GATTTAAATGGGGTCTGGAAACCAGAACACGGCAGATTGTTAAAAAGCCAGAAAAGACACAATACCATG  
TCCGACCATGCGGAGTCCAGGAGATGCAAGATGGCCATGAGGCACTGTCCAGGAGGAAAGAGAACCA  
AAGGCAAAAGAGAAGAGAAAACAAGAAGAAGAGCGGAAGCTGATTGAGAGAGCCCAAGAGCAGCACAGCG  
TCTTCTCGCTACAGACAGAGTGAACCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR216699 representing NM\_172815  
 Red=Cloning site Green=Tags(s)

MRFCLFSFALIILNCMDYSQCQGNRWRNRKRASYVSNPICKGCLSCSKDNGCSRCQKLFLLRREGMRQ  
 YGELHSCPSGYGHRAPDMNRCARCRIENCDSFC SKDFCTKCKVGFYLHRGRCFDECPDGFAPLDETM  
 CVEGCEVGHWSEWGTCSRNNRTCGFKWGLETRTRQIVKKPAKDTIPCPTIAESRRCKMAMRHC  
 PGGKRTPKAKEKRNKKRRKLIERAQEQHSVFLATDRVNQ

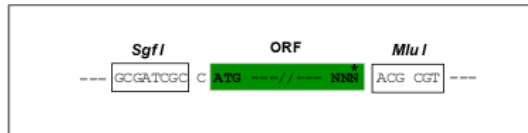
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1259\\_c12.zip](https://cdn.origene.com/chromatograms/ja1259_c12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_172815

**ORF Size:** 729 bp

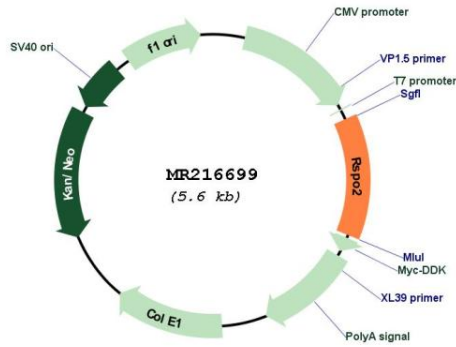
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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. [More info](#)

**OTI Annotation:** 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>	<u>NM_172815.3, NP_766403.1</u>
<b>RefSeq Size:</b>	3340 bp
<b>RefSeq ORF:</b>	732 bp
<b>Locus ID:</b>	239405
<b>UniProt ID:</b>	<u>Q8BFU0</u>
<b>Cytogenetics:</b>	15 16.73 cM
<b>MW:</b>	28.7 kDa
<b>Gene Summary:</b>	Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors. Upon binding to LGR4-6 (LGR4, LGR5 or LGR6), LGR4-6 associate with phosphorylated LRP6 and frizzled receptors that are activated by extracellular Wnt receptors, triggering the canonical Wnt signaling pathway to increase expression of target genes. Also regulates the canonical Wnt/beta-catenin-dependent pathway and non-canonical Wnt signaling by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. Probably also acts as a ligand for frizzled and LRP receptors (PubMed:21693646). During embryonic development, plays a crucial role in limb specification, amplifying the Wnt signaling pathway independently of LGR4-6 receptors, possibly by acting as a direct antagonistic ligand to RNF43 and ZNRF3, hence governing the number of limbs an embryo should form (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR216699