

## Product datasheet for **MG218621**

### **Rspo3 (NM\_028351) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rspo3 (NM_028351) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rspo3
Synonyms:	2810459H04Rik; AW742308; Cristin1; Thsd2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG218621 representing NM_028351 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCACTTGCGACTGATTTCTTGTTTTTATCATTTTGAACTTTATGGAATACATTGGCAGCCAAAACG  
CCTCCCGAGGAAGGCCAGCGAAGAATGCATCCTAATGTCAGTCAAGGCTGCCAAGGAGGCTGTGCAAC  
GTGTTTCAGATTACAATGGCTGTTTGTCTGTGAAGCCAGACTGTTTTTGTCTGGAAAGGATTGGCATG  
AAGCAGATAGGAGTGTGCTCTCTTCGTGTCCAAGTGGATATTACGGAACGATATCCAGATATAAATA  
AATGTACAAAATGCAAAGTTGACTGTGATACCTGTTTCAACAAAATTTCTGCACAAAGTGTAAAGTGG  
ATTTTACTTACACCTTGGAAGTGCCTTGACAGTTGCCAGAAAGGTTAGAAGCCAACAATCATACTATG  
GAATGTGTCAGTATTGTACACTGTGAGGCCAGTGAATGGAGTCCATGGAGTCCATGTATGAAGAAAGGAA  
AAACATGTGGCTTCAAAAGGGGACTGAAACACGGGTCCGAGATATACTACAGCATCCTTCAGCCAAGGG  
TAACCTGTGCCCCCAACCAGCGAGACAAGAACTTGATAGTACAAAGAAAGAGTGTTCAAAGGGAGAG  
CGAGGAAAAAGGAAGAGAGAGAAAAACGAAAAAACTGAATAAAGAAGAAAGAAAGAAACAAGCTCCT  
CCTCTGACAGCAAAGTTTGGAGTCCAGCATTGAGACCCAGACCAGCAGGAAAAACAAAGAGAGGCGCA  
GCAGCAGAAGAGAAGAGCCCGAGACAAGCAACAGAAATCGGTATCAGTCAGCACTGTACAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Chromatograms: [https://cdn.origene.com/chromatograms/ja1712\\_a04.zip](https://cdn.origene.com/chromatograms/ja1712_a04.zip)

Restriction Sites: SgfI-MluI



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## Cloning Scheme:



ACCN: NM\_028351

ORF Size: 831 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.

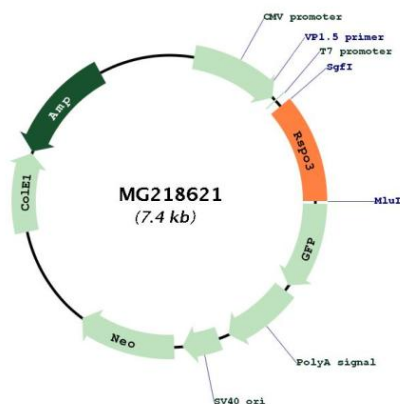
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

Components: 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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_028351.3, NP_082627.3</u>
<b>RefSeq Size:</b>	2411 bp
<b>RefSeq ORF:</b>	834 bp
<b>Locus ID:</b>	72780
<b>UniProt ID:</b>	<u>Q2TJ95</u>
<b>Cytogenetics:</b>	10 A4
<b>Gene Summary:</b>	<p>Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors, which acts as a key regulator of angiogenesis (PubMed:16543246, PubMed:21693646, PubMed:26766444). 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. Acts as a ligand for frizzled FZD8 and LRP6. May negatively regulate the TGF-beta pathway (PubMed:16543246, PubMed:21693646). Acts as a key regulator of angiogenesis by controlling vascular stability and pruning: acts by activating the non-canonical Wnt signaling pathway in endothelial cells (PubMed:26766444, PubMed:16543246, PubMed:21693646). Can also amplify Wnt signaling pathway independently of LGR4-6 receptors, possibly by acting as a direct antagonistic ligand to RNF43 and ZNRF3 (By similarity).[UniProtKB/Swiss-Prot Function]</p>

## Product images:



Circular map for MG218621