

## Product datasheet for **RG204864**

### Sprouty 2 (SPRY2) (NM\_005842) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sprouty 2 (SPRY2) (NM_005842) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sprouty 2
Synonyms:	hSPRY2; IGAN3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204864 representing NM_005842 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGCCAGAGCTCAGAGTGGCAACGGGTCGCAGCCCTTGCTGCAGACGCCCCGTGACGGTGGCAGAC  
AGCGTGGGAGCCCGACCCAGAGACGCCCTCACCCAGCAGGTACATGTCTTGTCTCTGGATCAGATCAG  
AGCCATCCGAAACACCAATGAGTACACAGAGGGGCTACTGTCGTCCTCAAGACCTGGGCTCAAGCCTGCT  
CCTCGCCCTCCACTCAGCACAAACACGAGAGACTCCACGGTCTGCCTGAGCACCAGCCAGCCTCCTAGGC  
TCCAGCACTCGCAGGTCCATTCTTCTGCACGAGCCCTCTGTCCAGATCCATAAGCACGGTCAGCTCAGG  
GTCGCGGAGCAGTACGAGGACAAGTACCAGCAGCAGCTCCTCTGAACAGAGACTGCTAGGATCATCCTTC  
TCCTCCGGGCTGTTGCTGATGGCATAATCCGGGTGCAACCCAAATCTGAGCTCAAGCCAGGTGAGCTTA  
AGCCACTGAGCAAGGAAGATTTGGGCTGCACGCCTACAGGTGTGAGGACTGTGGCAAGTCAAATGTAA  
GGAGTGCACCTACCAAGGCCTCTGCCATCAGACTGGATCTGCGACAAGCAGTGCCTTTGCTCGGCCAG  
AACGTGATTGACTATGGGACTTGTGTATGCTGTGTGAAAGGTCTCTTCTATCACTGTTCTAATGATGATG  
AGGACAAGTGTGCTGACAACCATGTTCTTGCAGCCAGTCTCACTGTTGTACACGATGGTCAGCCATGGG  
TGTCATGTCCCTTTTTGCCTTGTTATGGTGTACCTCCAGCCAAGGTTGCCTTAAATTGTGCCAG  
GGGTGTTATGACCGGTTAACAGGCCTGGTTGCCGCTGTA AAAACTCAAACACAGTTTGTGCAAAGTTC  
CCACTGTCCCCCTAGGAACCTTTGAAAAACCAACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204864 representing NM\_005842  
 Red=Cloning site Green=Tags(s)

MEARAQSGNGSQPLLQTPRDGGRQGEPPRDAL TQQVHVL SLDQIRAIRNTNEYTEGTPVVPRPGLKPA  
 PRPSTQHKHERLHGLPEHRQPRLQHSQVHSSARAPLSRSISTVSSGSRSTRSTSSSSSEQRLLGSSF  
 SSGPVADGIIRVQPKSELKPGELKPLSKEDLGLHAYRCEDCGKCKCKECTYPRPLPSDWICDKQCLCSAQ  
 NVIDYGTCCVCKGLFYHCSNDDNEDNCADNPSCSCSQSHCCTRSWAMGVMSLFLPCLWCYLPKAGCLKLKCQ  
 GCYDRVNRPGCRCKNSNTVCCKVPTVPPRNF EKPT

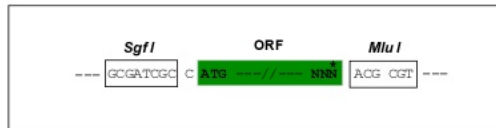
TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3447\\_a02.zip](https://cdn.origene.com/chromatograms/ja3447_a02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_005842

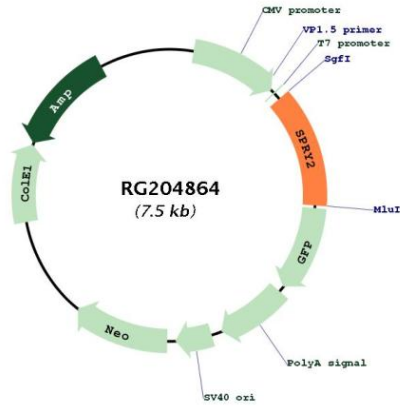
**ORF Size:** 945 bp

**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](#)

<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_005842.4</a>
<b>RefSeq Size:</b>	2126 bp
<b>RefSeq ORF:</b>	948 bp
<b>Locus ID:</b>	10253
<b>UniProt ID:</b>	<a href="#">O43597</a>
<b>Cytogenetics:</b>	13q31.1
<b>Domains:</b>	Sprouty
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Jak-STAT signaling pathway
<b>Gene Summary:</b>	<p>This gene encodes a protein belonging to the sprouty family. The encoded protein contains a carboxyl-terminal cysteine-rich domain essential for the inhibitory activity on receptor tyrosine kinase signaling proteins and is required for growth factor stimulated translocation of the protein to membrane ruffles. In primary dermal endothelial cells this gene is transiently upregulated in response to fibroblast growth factor two. This protein is indirectly involved in the non-cell autonomous inhibitory effect on fibroblast growth factor two signaling. The protein interacts with Cas-Br-M (murine) ectropic retroviral transforming sequence, and can function as a bimodal regulator of epidermal growth factor receptor/mitogen-activated protein kinase signaling. This protein may play a role in alveoli branching during lung development as shown by a similar mouse protein. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG204864