

Product datasheet for **RC204864**

Sprouty 2 (SPRY2) (NM_005842) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Sprouty 2 (SPRY2) (NM_005842) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Sprouty 2 |
| Synonyms: | hSPRY2; IGAN3 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC204864 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGCCAGAGCTCAGAGTGGCAACGGGTCGCAGCCCTTGCTGCAGACGCCCCGTGACGGTGGCAGAC
AGCGTGGGAGCCCGACCCAGAGACGCCCTCACCCAGCAGGTACATGTCTTGTCTCTGGATCAGATCAG
AGCCATCCGAAACACCAATGAGTACACAGAGGGGCTACTGTCGTCCTCAAGACCTGGGCTCAAGCCTGCT
CCTCGCCCTCCACTCAGCACAAACACGAGAGACTCCACGGTCTGCCTGAGCACCAGCCAGCCTCCTAGGC
TCCAGCACTCGCAGGTCCATTCTTCTGCAGAGCCCTCTGTCCAGATCCATAAGCACGGTCAGCTCAGG
GTCGCGGAGCAGTACGAGGACAAGTACCAGCAGCAGCTCCTCTGAACAGAGACTGCTAGGATCATCCTTC
TCCTCCGGGCTGTTGCTGATGGCATAATCCGGGTGCAACCCAAATCTGAGCTCAAGCCAGGTGAGCTTA
AGCCACTGAGCAAGGAAGATTTGGGCTGCACGCCTACAGGTGTGAGGACTGTGGCAAGTCAAATGTAA
GGAGTGCACCTACCAAGGCCTCTGCCATCAGACTGGATCTGCGACAAGCAGTGCCTTTGCTCGGCCAG
AACGTGATTGACTATGGGACTTGTGTATGCTGTGTGAAAGGTCTCTTCTATCACTGTTCTAATGATGATG
AGGACAAGTGTGCTGACAACCATGTTCTTGCAGCCAGTCTCACTGTTGTACACGATGGTCAGCCATGGG
TGTCATGTCCCTTTTTGCCTTGTTTATGGTGTACCTCCAGCCAAGGTTGCCTTAAATTGTGCCAG
GGGTGTTATGACCGGTTAACAGGCCTGGTTGCCGCTGTAAAACTCAAACACAGTTTGTGCAAAGTTC
CCACTGTCCCCCTAGGAACCTTTGAAAAACCAACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204864 protein sequence
Red=Cloning site Green=Tags(s)

MEARAQSGNGSQPLLQTPRDGGRQGEPPRDALTQQVHVLSLDQIRAIRNTNEYTEGTPVVRPGLKPA
 PRPSTQHKHERLHGLPEHRQPPRLQHSQVHSSARAPLSRSISTVSSGSRSTRSTSSSSSEQRLGSSF
 SSGPVADGIIIRVQPKSELKPGELKPLSKEDLGLHAYRCEDCGKCKCKECTYPRPLPSDWICDKQLCSAQ
 NVIDYGTVCVCKGLFYHCSNDDNDCADNPSCSCSQSHCCTRWSAMGVMSLFLPCLWCYLPKAGCLKLCLQ
 GCYDRVNRPGCRCKNSNTVCCKVPTVPPRNF EKPT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6063_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005842

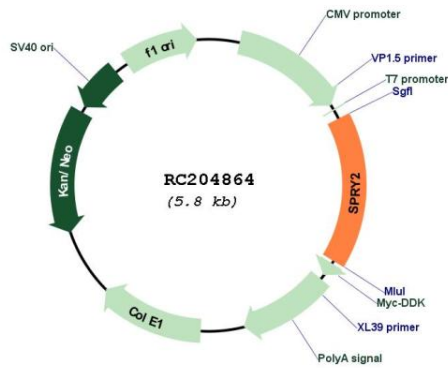
ORF Size: 945 bp

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 or by calling 301.340.3188 option 3 for pricing and delivery.

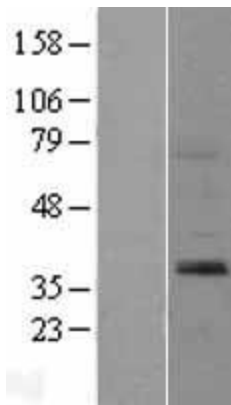
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

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| 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). |
| Reconstitution Method: | <ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.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. |
| Note: | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| RefSeq: | NM_005842.4 |
| RefSeq Size: | 2126 bp |
| RefSeq ORF: | 948 bp |
| Locus ID: | 10253 |
| UniProt ID: | O43597 |
| Cytogenetics: | 13q31.1 |
| Domains: | Sprouty |
| Protein Families: | Druggable Genome |
| Protein Pathways: | Jak-STAT signaling pathway |
| MW: | 34.7 kDa |
| Gene Summary: | 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] |

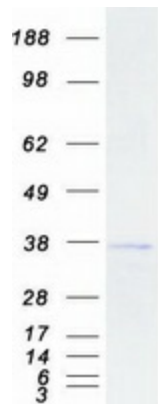
Product images:



Circular map for RC204864



Western blot validation of overexpression lysate (Cat# [LY401772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204864 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SPRY2 protein (Cat# [TP304864]). The protein was produced from HEK293T cells transfected with SPRY2 cDNA clone (Cat# RC204864) using MegaTran 2.0 (Cat# [TT210002]).