

## Product datasheet for **RG203482**

### **SPATA2 (NM\_006038) Human Tagged ORF Clone**

#### **Product data:**

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Product Type:</b>             | Expression Plasmids     |
| <b>Tag:</b>                      | TurboGFP                |
| <b>Symbol:</b>                   | SPATA2                  |
| <b>Synonyms:</b>                 | PD1; PPP1R145; tamo     |
| <b>Mammalian Cell Selection:</b> | Neomycin                |
| <b>Vector:</b>                   | pCMV6-AC-GFP (PS100010) |
| <b>E. coli Selection:</b>        | Ampicillin (100 ug/mL)  |



**ORF Nucleotide Sequence:** >RG203482 representing NM\_006038  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGGGAAGCCAGTTCAATGGATACTAAATTCAGGATGACTTATTTTCGGAAGTACGTGCAGTTCCATG  
 AGAGCAAAGTGGATACCACCACCAGCAGGCGGCTGGCAGCGATGAGTGCCTGCGGGTGGCAGCCTC  
 AACCTGCTCAGCTGCACAAGGTGGATCCCTTTATCGATTCCGGCTGATCCAGTTCTATGAGGTGGT  
 GAGAGCTCCTTGCCTCGCTCAGCTCCTCTAGCCTGCGGGCTCTGCACGGCGCCTTCAGCATGCTGGAGA  
 CGGTGGGCATCAACCTCTTCTCTACCCGTGGAAGAAGGAATTCAGAAGCATCAAGACCTACACGGGCC  
 TTTTGTATTATGTCAAGTCGACATTACTGGAAGAGGACATCCGAGCCATCCTGAGCTGCATGGGCTAC  
 ACACCTGAGCTGGCACTGCATACAAGCTCAGAGAGCTCGTGGAGACCCTCCAGGTGAAGATGGTCTCCT  
 TTGAGCTCTTTCTGGCCAAAGTCGAGTGTGAGCAGATGCTAGAAATCCACTCACAAGTGAAGGACAAGGG  
 CTACTCCGAGCTGGACATTGTGAGCGAGCGCAAGAGCAGTGCAGAGGATGTGCGCGGCTGCTCGGACGCC  
 CTGCGGCGGCGGGCAGAGGGCCGGGAGCACCTGACGGCCTCCATGTACAGAGTGGCACTCCAGAAGTCGG  
 CCAGCGAGCGGGCGGCCAAGGACTACTACAAGCCCGCGTGACCAAGCCCTCGAGGTGAGTGGATGCCTA  
 TGACAGCTACTGGGAGAGCCGAAGCCACCCTGAAGGCCCTATTGAGTCTTCGGAAGGAGCCTGTGGCA  
 ACGGATGTGGGGACGACCTCAAGGATGAGATCATCCGCCATCCCCTTCGTGCTGACCATGGCCAGCT  
 CCCCCACGGCAGCCCGGATGTGCTTCCACCCGCTCCCCAGCAACGGCCCGGCCCTGCTGCGCGGTAC  
 CTACTTCTCCACTCAGGATGACGTGGATCTGTACACAGACTCTGAACCCAGGGCCACCTACCGTGGCAG  
 GATGCTCTGCGGCCGATGTGTGGCTGCTCAGAAACGATGCCCACTCCCTCTACCACAAGCGCTCGCCCC  
 CTGCCAAAGAGTCGCCCTCTCCAAGTCCAAAGCTGCGGGCTGTCTGCAGCTCCTCCTCTGCCAGCG  
 CTGTGACAGCTGCTCAGCTGTCTCCAGCTTCCAAGCCAGCGCCTTCCCAGCAAGGCCCTCGACTCAT  
 GACAGCTGGGCCACGGGGCATCTCTGCGGGAGAAGTACCCAGGCCAGACTCAGGGCCTCGACCGCTCC  
 CGCACCTTCACTCCAAATCCAAGCCCTCCACCAGCCCACTTCCCGCTGTGGCTTCTGCAACCGCCAGG  
 CGCCACCAACACCTGCACCCAGTGTCAAAGTCTCATGTGACGCTGCCTCAGCGCTTACCATTATGAC  
 CCCTGCTACAAAAGAGTGAGCTGCACAAGTTCATGCCCAACAACAGCTGAAGTACAAGTCCACCCAGC  
 TCTCCATCTCGTGACAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

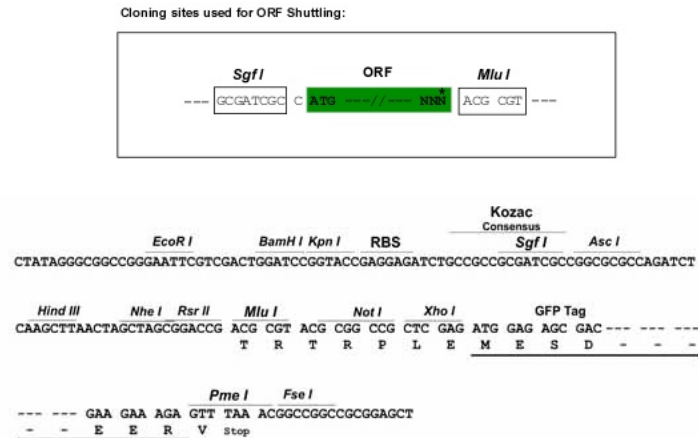
**Protein Sequence:** >RG203482 representing NM\_006038  
 Red=Cloning site Green=Tags(s)

MGKPSSMDTKFKDDLFRKYVQFHESKVDTTTSRQRPGSDECLRVAASTLLSLHKVDPFYRFRLLIQFYEVV  
 ESSLRSLSSSSLRALHGAFSMLTVGINLFLYPWKKEFRSIIKTYTGPVYYVKSTLLEEDIRAILSCMGY  
 TPELGTAYKLRELVELQVKMVSFELFLAKVECEQMLEIHSQVKDKGYSELDIVSERKSSAEDVRCSDA  
 LRRRAEGREHLTASMSRVALQKSASERAADYKPRVTKPSRSVDAYDSYWESRKPLKASLSLRKEPVA  
 TDVGDDLKDEIIRPSPLLTMASPHGSPDVLPPASPSNGPALLRGTYFSTQDDVDLYTDSEPRATYRRQ  
 DALRPDVWLLRNDHSLYHKRSPPAKESALSKQSCGLSCSSSLCQRCDLLTCCPASKPSAFPSKASTH  
 DSLAHGASLREKYPGQTQGLDRLPHLHSSKSPSTTPTSRCGFCNRPATNTCTQCSKVSCDACLSAYHYD  
 PCYKSELHKFMPNNQLNYKSTQLSHLVYR

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

## Cloning Scheme:



**ACCN:** NM\_006038

**ORF Size:** 1560 bp

**OTI Disclaimer:** 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).

**Reconstitution Method:**

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.

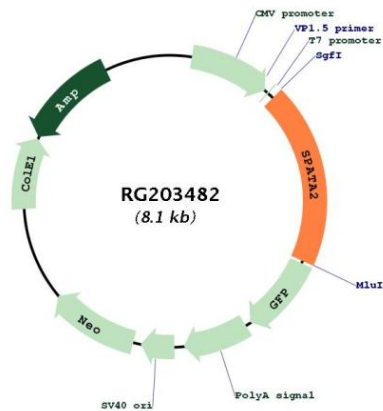
**RefSeq:** [NM\\_006038.4](#)

**RefSeq Size:** 4058 bp

RefSeq ORF: 1563 bp  
Locus ID: 9825  
UniProt ID: [Q9UM82](#)  
Cytogenetics: 20q13.13

**Gene Summary:** Bridging factor that mediates the recruitment of CYLD to the LUBAC complex, thereby regulating TNF-alpha-induced necroptosis (PubMed:27307491, PubMed:27458237, PubMed:27545878, PubMed:27591049). Acts as a direct binding intermediate that bridges RNF31/HOIP, the catalytic subunit of the LUBAC complex, and the deubiquitinase (CYLD), thereby recruiting CYLD to the TNF-R1 signaling complex (TNF-RSC) (PubMed:27458237, PubMed:27545878, PubMed:27591049). Required to activate the 'Met-1'- (linear) and 'Lys-63'-linked deubiquitinase activities of CYLD (PubMed:27458237, PubMed:27591049). Controls the kinase activity of RIPK1 and TNF-alpha-induced necroptosis by promoting 'Met-1'-linked deubiquitination of RIPK1 by CYLD (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RG203482