

Product datasheet for **RG215650**

SPIRE2 (NM_032451) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPIRE2 (NM_032451) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPIRE2
Synonyms:	Spir-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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Protein Sequence: >RG215650 representing NM_032451
 Red=Cloning site Green=Tags(s)

```
MARAGSCGGAAGAGRPEPWELSLEEVLKAYEQPLNEEQAWAVCFQGCRGLRGSPGRRLRDTGDLRLRGD
GSVGAREPEAAEPATMVVPLASSEAQTVQSLGFATYRALDWGLDESEERELSPQLERLIDLMANNDSEDS
GCGAADEGYGGPEEEEEAEQVPRSVRTFAQAMRLCAARLTDPRGAQAHYQAVCRALFVETLELRAFLARV
REAKEMLQKLREDEPHLETBRAELDSLGHTDWARLWVQLMRELRRGVKLVKQVEQEFNPLPTEFQLTPFE
MLMQDIRARNYKLRKVMVDGDIIPRVKKAHELILDFIRSPPPLKQVSERRLRPLPPKQSLHEKILEEI
KQERRLRPVRGEGWAARGFGLPCILNACSGDAKSTSCINLSVTDAGGSAQRPRRVLLKAPTLAEMEEM
NTSEEESSPCGEVTLKRDRSFSEHDLAQLRSEVASGLQSATHPPGGTEPPRPRAGSAHVWRPGRDQGTGTC
PASVSDPSHPLLNRGSSGDRPEASMPDAKHLWLEFSHPVESLALTVVEVMDVRRVLVKAEMEKFLQNK
ELFSSLKKGKICCCRAKFLFSWPPSCLFCKRAVCTSCSIKMKMPSKFKGHIPVYTLGFESPQRVSAAK
TAPIQRDIFQSLQGPQWQSVVEAFPHIYSHGCVLKDVCSECTSFVADVVRSSRKSVDVLNTTPRRSRQT
QSLYIPNTRTLDFK
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032451

ORF Size: 2142 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.

RefSeq: [NM_032451.2](#)

RefSeq Size: 3249 bp

RefSeq ORF: 2145 bp

Locus ID: 84501

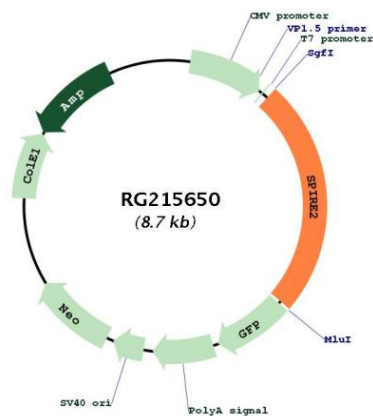
UniProt ID: [Q8WWL2](#)

Cytogenetics: 16q24.3

Protein Pathways: Dorso-ventral axis formation

Gene Summary: Acts as an actin nucleation factor, remains associated with the slow-growing pointed end of the new filament (PubMed:21620703). Involved in intracellular vesicle transport along actin fibers, providing a novel link between actin cytoskeleton dynamics and intracellular transport (By similarity). Required for asymmetric spindle positioning and asymmetric cell division during meiosis (PubMed:21620703). Required for normal formation of the cleavage furrow and for polar body extrusion during female germ cell meiosis (PubMed:21620703). Also acts in the nucleus: together with SPIRE1 and SPIRE2, promotes assembly of nuclear actin filaments in response to DNA damage in order to facilitate movement of chromatin and repair factors after DNA damage (PubMed:26287480).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG215650