

## Product datasheet for **RG228484**

### Synaptotagmin 14 (SYT14) (NM\_001146264) Human Tagged ORF Clone

#### Product data:

|                           |                                                                |
|---------------------------|----------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                            |
| Product Name:             | Synaptotagmin 14 (SYT14) (NM_001146264) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                                       |
| Symbol:                   | Synaptotagmin 14                                               |
| Synonyms:                 | SCAR11; sytXIV                                                 |
| Mammalian Cell Selection: | Neomycin                                                       |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                        |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                         |



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**ORF Nucleotide Sequence:**

>RG228484 representing NM\_001146264  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**C

ATGGCGAGCGCATCATGGCGATTGAAGGTGGAGAGAGAACCTGTGGAGTACATGAACTTATCTGTATTAG  
 AAAAGATAGGGTATTTCTCTGTGGCCAGGCTGGAGTACAGTGGCACCATCTTGGCTCACTGCAACTTCCG  
 CCTCTGGGTTCAAACGATTCTTCTGCCTCAGCATCCCAAGTAACGGGACTACAGTATCTCCAGAGGCA  
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 AGTTCTGTTTTGAAAATGTTGGCGGTTTCCAGATCTTGGTTCAGAATACAGTACAAGGAAGAATTCACA  
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 GGAATATGCTTGGGAAACAAGGCAGAAATACAGTCTCTATCGCAGAGTATGATGGATACAGTAGTGA  
 AGCATCAATAGATGAAGGAACTGCATTGAGAGAATGAGAAGAACCCCCGCTGGATGAATTGCAGCCA  
 CCACCATATCAGGATGACAGTGGTCTCCCCATCTGTCATGTACACCCTCAGAAATTGGGGACAGTAAAT  
 GTGAATTTTCCCACTGCAGCAACAGTCCAAGATGCTCATATAACAAGTGCCCAAGTGAAGGAAGCACAGG  
 TCATGAAATAGAAAGTTTTCAATAAAGGATATGAAGAAGATGTTCCAAGTGACAGCACTGCAGTCCTG  
 AGCCCTGAAGATATGTCAGCTCAAGGATCATCTTCGAGCTTCTTAAACCTTTTGATCCTGAGCCAGAAG  
 CTAATATGGCACACTGGATGTGACTTTTGACTATGACTCACAAGAACAGAAGCTTCTGGTAACAGTGAC  
 AGCTGTCACAGACATCCCAACATATAACAGGACAGGTGGCAACTCATGGCAAGTACACCTTGTCTTCTA  
 CCTATAAAGAAACAGAGAGCAAAAACAGCATCCAGAGAGGACCATGCCCTGTCTTCACAGAAACATTTA  
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 CATGAAAAAAGAAAAGATTGTGGGGAAAAGATTTTTATTTAAACAAAATTGAATCTTCAAGGGAAAATG  
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 TGTCGTGTAGTGAAGTACATCCTCATGTCAGTCTCTTGAACATGGCTCAGTTCAGAAATTCTTATTGG  
 CCTGCTTTATAATGCCCAACTGGAAGACTATCAGCAGAAGTGATAAAGGCAGCCACTTCAAAAATTTG  
 GCAGCAACAGACCACCAATACATATGTTAAGTTAACTCTACTGAATCCATGGGTCAAGAGATGTCCA  
 AATGCAAGACATCCATCCGAGAGGGCAGCCAAATCCAGTATATAAGGAACTTTTGTCTTTCAAGTGGC  
 CCTATTTAGCTTTCTGATGTGACTCATACTGTCTGTGTATAACAAACGCAGCATGAAAAGAAAAGAG  
 ATGATAGGCTGGATTTCTTTAGGTCTCAACAGCTCTGGAGAAGAAGAACTCAATCACTGGACTGAAATGA  
 AAGAGTCAAAGGACAGCAAGTATGTAGATGGCATGCGTTGCTAGAGTCA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG228484 representing NM\_001146264  
 Red=Cloning site Green=Tags(s)

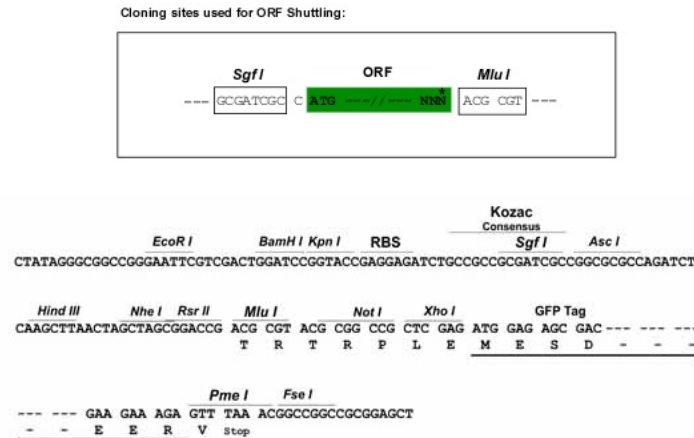
MASASWRLKVEREPVEYMNLSVLEKIGYFSVARLEYSGLILAHCNFRLLGSNDSSASASQVTGTTVSPEA  
 VGFLSAVGVFIIIMLLFLYINKKFCFENVGGFPDLGSEYSTRKNSQDKIYNSYMDKDEHGSSSESEDEA  
 LGKYHEALSRTHNSRLPLADSRQRNYAWETRQKYSPLSAEYDGYSSSEASIDEGNCIQMRRTPLDELQP  
 PPYQDDSGSPHL SCTPSEIGDSKCEF SHCSNSPRCSYNKCPSEGSTGHEIESFHNKGYEEDVPSDSTAVL  
 SPEDMSAQGSSSQLPKPFDPEPEAKYGLDVTFDYDSQEQKLLVTVTAVTDIPTYNRTGGNSWQVHLVLL  
 PIKKQRAKTSIQRGPCPVFTETFKFNHVESEMIGNYAVRFRLYGVHRMKKEKIVGEKIFYLTKLNLQGM  
 SLPVILEPSYNHSGCDSQMSVSEMSCSESTSSCQSLEHGSVPEILIGLLYNATTGRLSAEVIKGSHFKNL  
 AANRPPNTYVKLTLLNSMGQEMSKCKTSIRRGQPNPVYKETFFVQVALFQLSDVTLILSVYNKRSMKRKE  
 MIGWISLGLNSSGEEELNHWTEMKESKGQVQCRWHALLES

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

## Cloning Scheme:



ACCN: NM\_001146264

ORF Size: 1800 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\\_001146264.3](#)

RefSeq Size: 5110 bp

RefSeq ORF: 1803 bp

Locus ID: 255928

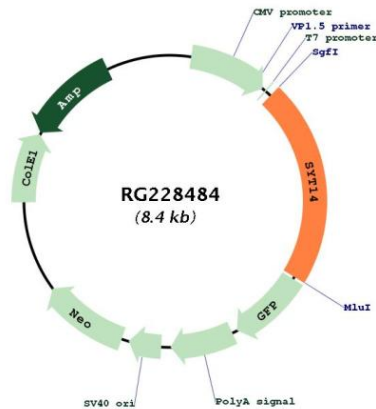
Cytogenetics: 1q32.2

Protein Families: Transmembrane

## Gene Summary:

This gene is a member of the synaptotagmin gene family and encodes a protein similar to other family members that mediate membrane trafficking in synaptic transmission. The encoded protein is a calcium-independent synaptotagmin. Mutations in this gene are a cause of autosomal recessive spinocerebellar ataxia-11 (SCAR11), and a t(1;3) translocation of this gene has been associated with neurodevelopmental abnormalities. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene, and a pseudogene of this gene is located on the long arm of chromosome 4. [provided by RefSeq, Dec 2011]

## Product images:



Circular map for RG228484