

## Product datasheet for **RG235231**

### NOTCH2 (NM\_001200001) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NOTCH2 (NM\_001200001) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** NOTCH2  
**Synonyms:** AGS2; HJCYS; hN2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG235231 representing NM\_001200001  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCCGCCCTGCGCCCCGCTCTGCTGTGGGCGCTGCTGGCGCTCTGGCTGTGCTGCGCGGCCCCCGCGC  
 ATGCATTGCAGTGTGAGATGGCTATGAACCTGTGTAATGAAGGAATGTGTGTACCTACCACAATGG  
 CACAGGATACTGCAAATGTCCAGAAGGCTTCTGGGGGAATATTGTCAACATCGAGACCCCTGTGAGAAG  
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 GCAATATATTTGCACCTGCCACAAGGCTACAAAGGGGCTGACTGCACAGAAGATGTGGATGAATGTGCC  
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 GTCTGAAGGGTTATGCAGGACCTCGTTGTGAGATGGACATCAATGAGTGCATTACAGCCCTGCCAGAA  
 TGATGCTACCTGTCTGGATAAGATTGGAGGCTTACATGTCTGTGCATGCCAGGTTTCAAAGGTGTGCAT



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TGTGAATTAGAAATAAATGAATGTCAGAGCAACCCTTGTGTGAACAATGGGCAGTGTGTGGATAAAGTCA  
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GCTACTGTGAGGAGCAACTCGATGAGTGTGCGTCCAACCCCTGCCAGCACGGGGCAACATGCAGTGACTT  
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TGCCAGAATCAGCCCTGCCAGAATGGAGGCACCTGTATTGACCTGTGAACCATTCAAGTGTCTTGGC  
CACCAGGCACTCGGGTATGAAATCATCTTATCCATTTCCATCCAGGGCATTGTCTTAAGTTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG235231 representing NM\_001200001  
 Red=Cloning site Green=Tags(s)

MPALRPALLWALLALWLCCAAPAHALQCRDGYEPCVNEGMCVTYHNGTGYCKPEGFLGEYCQHRDPCEK  
 NRCQNGGTCVAQAMLGKATCRCASGFTGEDCQYSTSHPCFVSRPCLNGGTCHMLSRDYEECTCQVGTGK  
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 CPLGYTGKNCQTLVNLCSRSPCKNKGT CVQKKAESQCLPSGWAGAYCDVPNVSCDIAASRRGVL VEHLC  
 QHSGVCINAGNTHYCQPLGYTGSYCEEQLDECASNPCQHGATCSDFIGGYRCECVPGYQVGNCEYEVDE  
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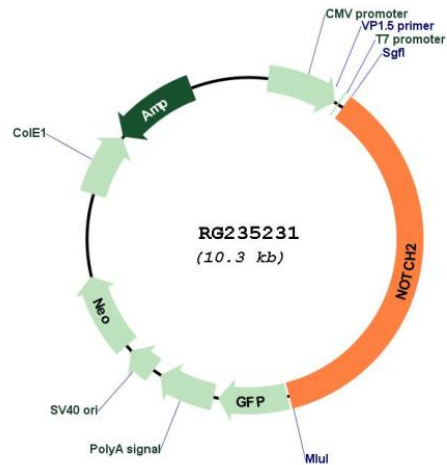
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001200001

**ORF Size:** 3705 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\\_001200001.1](#), [NP\\_001186930.1](#)

**RefSeq Size:** 4326 bp

**RefSeq ORF:** 3708 bp

**Locus ID:** 4853

**UniProt ID:** [Q04721](#)

**Cytogenetics:** 1p12

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Dorso-ventral axis formation, Notch signaling pathway

**Gene Summary:** This gene encodes a member of the Notch family. Members of this Type 1 transmembrane protein family share structural characteristics including an extracellular domain consisting of multiple epidermal growth factor-like (EGF) repeats, and an intracellular domain consisting of multiple, different domain types. Notch family members play a role in a variety of developmental processes by controlling cell fate decisions. The Notch signaling network is an evolutionarily conserved intercellular signaling pathway which regulates interactions between physically adjacent cells. In *Drosophila*, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular signaling pathway that plays a key role in development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remain to be determined. This protein is cleaved in the trans-Golgi network, and presented on the cell surface as a heterodimer. This protein functions as a receptor for membrane bound ligands, and may play a role in vascular, renal and hepatic development. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2011]