

## Product datasheet for **MG209800**

### Tnfrsf21 (NM\_178589) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tnfrsf21 (NM_178589) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tnfrsf21
Synonyms:	AA959878; DR6; R74815; TR7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide  
Sequence:**

>MG209800 representing NM\_178589  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGACCCGGGCAAGCAGCATCACCGCCTCGCTCTTGCAGCCGACCCGGCCAAGTCGGAGCCA  
 CGATGGTCGCCGGCTCTTCTCCTGCTTGGATTCCCTCAGCACCATCACAGCTCAACCAGAACAAAAGAC  
 TCTGAGTCTCCCTGGCACCTACCGCCATGTTGACCGTACCACTGGCCAGGTGCTAACCTGCGACAAGTGC  
 CCAGCAGGAACGTATGTCTCCGAGCACTGTACCAACATGAGCCTGCGAGTCTGCAGCAGCTGCCCGCGG  
 GGACCTTTACCAGGCACGAGAACGGCATAGAGAGATGCCATGACTGTAGTCAGCCATGTCCATGGCCGAT  
 GATTGAGAGATTACCTTGTGCTGCCTTGACTGACCGAGAGTGCATCTGCCACCTGGAATGTATCAGTCT  
 AATGGTACCTGCGCTCCCATACAGTGTCCCGTGGGCTGGGGTGTGCGGAAGAAAGGGACAGAGAATG  
 AAGATGTGCGCTGTAAGCAGTGCCTCGGGTACCTTCTCTGACGTGCCTCCAGTGTGATGAAGTGTAA  
 AGCTCACACGGACTGTCTGGGTGAGAACCTGGAGGTGGTCAAGCCAGGGACCAAGGAGACAGACAACGTC  
 TGTGGCATGCGCCTGTTCTTCTCCAGCACAAACCCACCTTCTCTGGCACAGTTACCTTTTCTCACCTG  
 AGCATATGGAATCCCACGATGTCCCTTCTCCACCTATGAGCCCCAAGGATGAACCTCAACAGATTTCAA  
 CTCTACTGCCTCTGTTAGAACTAAGGTACCAAGTGGCATCGAGGAAGGGACAGTGCCTGACAATACGAGC  
 TCAACCACTGGGAAGGAAGGCACATAAGGACCCTGCCAAACCCACCACAAGTTACCCACCAGCAAGCCC  
 CCCACCACAGACACATTTGAAGCTGCTGCCATCGTCCATGGAGGCCACGGGTGAGAAGTCCAGCACAGC  
 CATCAAGGCCCAAGAGGGGTACCCACAGACAGAACGCTCACAAGCATTTCGACATCAACGAGCACTTG  
 CCTTGGATGATCGTCTTCTTCTGCTGGTCTGGTGTGATAGTGGTGTGCAGTATCCGAAAGAGCT  
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 CCTGACTCCCACCCAGAACCAGGAGAAAATGGATCTACTACCGCAACGGCCATGGTATTGACATCTTGAAG  
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 AGGTGGCGCCTTCTCCAATGGATACACTGCAGATCATGAACGGGCTACGCGGCTCTGCAGCACTGGAC  
 CATCCGTGGCCCTGAGGCCAGCCTTGCCAGCTCATTAGCGCCTTGCAGCAGCCGACGCAATGATGTT  
 GTGGAGAAGATTCGTGGGCTGATGGAAGACACCACGCAGTTGGAAACAGACAACTGGCTCTCCCATGA  
 GCCCAGTCCGCTGAGCCCGAGCCCATCCCCAGTCTAACGTGAACTTGAGAATTCCTCTCCTGAC  
 AGTGGAGCCCTCACCGCTGGACAAGAACAAGTGTCTTCTCGTGGACGAGTCAGAGCCCTTCTGCGTTGC  
 GACTCCACATCCAGTGGCTCTTACGACTGAGCAGAAACGGCTCCTTTATTACCAAGAAAAGAAGGACA  
 CAGTGTTCGCGCAGGTCCGCCTGGACCCCTGTGACTTGCAGCCATCTTTGATGACATGCTGCATATCCT  
 GAACCCCGAGGAGCTGCGGGTGATTGAAGAGATTTCCCAGGCTGAGGACAACTGGACCCCTCTTCGAG  
 ATCATTGGGGTCAAGAGCCAAGAAGCCAGCCAGACCCTTGGACTCTGTGTACAGTCATCTTCTGACC  
 TATTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG209800 representing NM\_178589  
 Red=Cloning site Green=Tags(s)

MGTRASSITALASCRTAGQVGATMVAGSLLLLGFLSTITAQPEQKTLPLPGTYRHVDRTTGQVLTCDKC  
 PAGTYVSEHCTNMSLRVCSSCPAGTFTRHENGIERCHDCSQPCWPMIERLPCAALTDREICPPGMYQS  
 NGTCAPHTVCPVGVGVRKKGTENEDVRCKQCARGTFSDVPSSVMKCKAHTDCLGQNLVVKPGTKETDNV  
 CGMRLFFSSTNPPSSGTVTF SHPEHMESHDPSSSTYEPQGMNSTDSNSTASVRTKVPVSGIEEGTVPDNTS  
 STSGKEGTNRTLNPQQVTHQQAPHHRHILKLLPSSMEATGEKSSTAIAKAPKRGHPRQNAHKHFDINEHL  
 PWMIVLFLLLVLIIVVCSIRKSSRTLKKGPRQDPSAIVEKAGLKKSLTPTQNREKWIYYRNGHGIDILK  
 LVAAQVGSQWKDIYQFLCNASEREVAAFSNGYTADHERAYAALQHWIRGPEASLAQLISALRQHRRNDV  
 VEKIRGLMEDTTQLETDKLALPMSPLSPSPIPSPNVKLENSTLLTVEPSPLDKNKCFVDESEPLLRC  
 DSTSSGSSALSRNGSFITKEKKDVLVLRQVRLDPCDLQPIFDDMLHILNPEELRVIEEIPQAEDKLDRLF  
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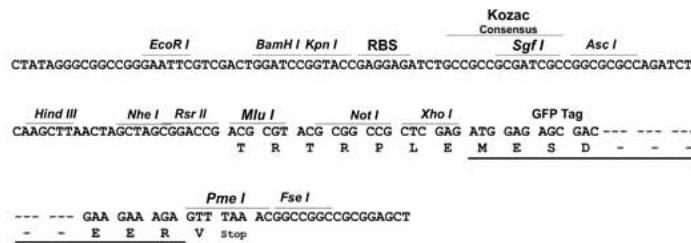
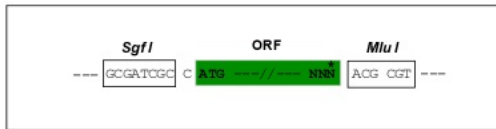
TRTRPLE - GFP Tag - V

Restriction Sites:

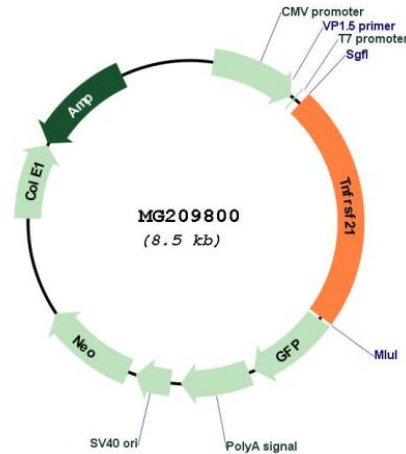
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



## Plasmid Map:



ACCN: NM\_178589

ORF Size: 1965 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\\_178589.2](#), [NP\\_848704.1](#)

RefSeq Size: 3628 bp

RefSeq ORF: 1968 bp

Locus ID: 94185

UniProt ID: [Q9EPU5](#)

Cytogenetics: 17 B3

**Gene Summary:** Promotes apoptosis, possibly via a pathway that involves the activation of NF-kappa-B. Can also promote apoptosis mediated by BAX and by the release of cytochrome c from the mitochondria into the cytoplasm. Plays a role in neuronal apoptosis, including apoptosis in response to amyloid peptides derived from APP, and is required for both normal cell body death and axonal pruning. Trophic-factor deprivation triggers the cleavage of surface APP by beta-secretase to release sAPP-beta which is further cleaved to release an N-terminal fragment of APP (N-APP). N-APP binds TNFRSF21; this triggers caspase activation and degeneration of both neuronal cell bodies (via caspase-3) and axons (via caspase-6). Negatively regulates oligodendrocyte survival, maturation and myelination. Plays a role in signaling cascades triggered by stimulation of T-cell receptors, in the adaptive immune response and in the regulation of T-cell differentiation and proliferation. Negatively regulates T-cell responses and the release of cytokines such as IL4, IL5, IL10, IL13 and IFNG by Th2 cells. Negatively regulates the production of IgG, IgM and IgM in response to antigens. May inhibit the activation of JNK in response to T-cell stimulation.[UniProtKB/Swiss-Prot Function]