

## Product datasheet for **RG208209**

### **OLIG2 (NM\_005806) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** OLIG2 (NM\_005806) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** OLIG2  
**Synonyms:** BHLHB1; bHLHe19; OLIGO2; PRKCBP2; RACK17  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG208209 representing NM\_005806  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACTCGGACGCCAGCCTGGTGTCCAGCCGCCCGTCGTCGCCAGAGCCCGATGACCTTTTCTGCCGG  
CCCGGAGTAAGGGCAGCAGCGCCAGCGCCTTCACTGGGGCACCCTGTCCTCGTCCACCCGAGTGACTG  
CCCGCCGAGCTGAGCGCCGAGCTGCGCGCGCTATGGGCTCTCGGGCGCGCATCCTGGGACAAGCTA  
GGAGGCAGTGGCTTCAAGTCATCCTCGTCCAGCACCTCGTCGTCTACGTCGTCGGCGGCTGCGTCGTCCA  
CCAAGAAGGACAAGAAGCAAATGACAGAGCCGGAGCTGCAGCAGCTGCGTCTCAAGATCAACAGCCGCGA  
GCGCAAGCGCATGCACGACCTCAACATCGCCATGGATGGCTCCGCGAGGTCATGCCGTACGCACACGGC  
CCTTCGGTGCACAAGCTTCCAAGATCACACGCTGCTGCTGGCGGCAACTACATCCTCATGCTACCA  
ACTCGTGGAGGAGATGAAGCGACTGGTGTGAGCGAGATCTACGGGGCCACCACGCTGGCTTCCACCCGTC  
GGCCTGCGGGCGCCTGGCGCACTCCGCGCCCTGCCCGCCGCCACCGCGCACCCGGCAGCAGCAGCGCAC  
GCCGCACATACCCCGCGGTGCACCACCCATCCTGCCGCCCGCCGCGCAGCGGCTGCTGCCCGCGCTG  
CAGCCGCGGCTGTGTCCAGCGCCTCTGCCCCGATCCGGGCTGCCGTGGTGGCTCAATCCGTCCACC  
GCACGGCTACTCAAGTCTCCGTCTGCTGCCCGGCCGCCCGCTGGGGGGCGGGGGCGGCGCAGTGGG  
GCGAGCGGGGGTCCAGCACTGGGGCGGATGCCCTGCCCTGCAGCATGTGCCAGTGGCCGCCCGCCG  
ACCACCAGTGTGGCTATGGGCGCCGGCAGCTGCCGCCCTCACCTCCGACGCCAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG208209 representing NM\_005806  
 Red=Cloning site Green=Tags(s)

MDSASLVSSRPSSPEPDDLFLPARSKGSSGSAFTGGTVSSSTPDCPELSAELRGAMGSAGAHPGDKL  
 GGSFGKSSSSSTSSSTSSAAASSTKDKKQMTPELQQLRLKINSRERKRMHDLNIAMDGLREVMPYAHG  
 PSVRKLSKITTLLLLARNYILMLTNSLEEMKRLVSEIYGGHHAGFHPSACGGLAHSAPLPAATAHPAAAAH  
 AAHHPAVHHPIPLPPAAAAAAAAAAAAVSSASLPGSGLPSVGSIRPPHGLLKSPSAAAAAPLGGGGGSG  
 ASGGFQHWGMPCCSMCQVPPPHHVVSAMGAGSLPRLTSDAK

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005806

**ORF Size:** 969 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\\_005806.2](#), [NP\\_005797.1](#)

**RefSeq Size:** 2505 bp

**RefSeq ORF:** 972 bp

**Locus ID:** 10215

**UniProt ID:** [Q13516](#)

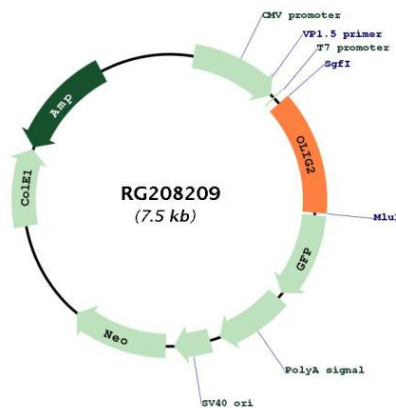
**Cytogenetics:** 21q22.11

**Domains:** HLH

**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** This gene encodes a basic helix-loop-helix transcription factor which is expressed in oligodendroglial tumors of the brain. The protein is an essential regulator of ventral neuroectodermal progenitor cell fate. The gene is involved in a chromosomal translocation t(14;21)(q11.2;q22) associated with T-cell acute lymphoblastic leukemia. Its chromosomal location is within a region of chromosome 21 which has been suggested to play a role in learning deficits associated with Down syndrome. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG208209