

## Product datasheet for **RG215647**

### **NAT8B (NM\_016347) Human Tagged ORF Clone**

#### Product data:

<b>Product Type:</b>	Expression Plasmids
<b>Tag:</b>	TurboGFP
<b>Symbol:</b>	NAT8B
<b>Synonyms:</b>	CML2; Hcml2; NAT8BP
<b>Mammalian Cell Selection:</b>	Neomycin
<b>Vector:</b>	pCMV6-AC-GFP (PS100010)
<b>E. coli Selection:</b>	Ampicillin (100 ug/mL)

**ORF Nucleotide Sequence:** >RG215647 representing NM\_016347  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCTCCTTATCATATCCGCAATACCAGGAGAGCGACCGCAAGTCGGTCGTGGGCTTGCTCTCCGGG  
GGATGGCCGAACACGCCCCAGCCACCTTCGGCGATTACTGAAGCTGCCTCGAACCCCTCATACTCTTACT  
TGGGGGGGCCCTTGCCCTACTCCTGGTCTCTGGCTCCTGGATTCTGGCCCTCGTGTTACGCCTCAGCCTC  
CTTCTGCCCTGTGGTTCCTTGCCAAAAACCCCTGGACGCGGTATGTAGACATAGCATTGCCACAGACA  
TGTCTGACATCACCAATCCTACCTGAGTGAKKGTGGCTCCTGCTTCTGGGTGGCTGAATCTGAAGAGAA  
GGTGGTGGGCACAGTAGGAGCTCTGCCCGTTGATGATCCACCTTGAGGGAGAAGCGGTTGCAGCTGTTT  
CATCTCTGTGGACAATGAGCACCGTGGTCAGGGGATAGCAAAGCCCTGGTCAGGACTGTCTCCAGT  
TTGCCCGGGACAGGGCTACAGTGAAGTTGTCTGGACACCAGCAACATCCAGCTCTCTGCCATGGGCT  
CTACCAGAGCTTGGGCTTCAAGAAAGACGGGCCAGTCCTTCTCCACGTGTGGGCCAGGCTGGTGGATCTT  
CATACAGTTCATTCATCTATCACCTCCCTTCTGCTCAGGCAGGGCGTCTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG215647 representing NM\_016347  
Red=Cloning site Green=Tags(s)

MAPYHIRKYQESDRKSVVGLLSGGMAEHAPATFRRLKLPRLLIILLGGALALLVSGSWILALVFSLSL  
LPALWFLAKKPWTRYVDIALRTDMSDITKSYLSXXGSCFWVAESEEKVVGTGALPVDDPTLREKRLQLF  
HLSVDNEHRGQGIKALVRTVLQFARDQGYSEVLDTSNIQLSAMGLYQSLGFKKTGQSFFHVWRLVDL  
HTVHFIIYHLPQAQRL

TRTRPLE - GFP Tag - V



**Restriction Sites:** SgfI-MluI

### Cloning Scheme:

Cloning sites used for ORF Shuttling:



Kozac  
Consensus

EcoRI BamHI KpnI RBS SgfI AscI

CTATAGGGCGGCGGGGAATTCTGTGACTGGATCCGGTACCGAGAGATCTGCCGCCGCATCGCCGGCGCCGCAGATCT

HindIII NheI RsrII MluI NotI XhoI GFP Tag

CAAGCTTAAC TAGTAGTCAGCGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AAG GAG ---  
- - - T R T R P L E M E S D - - -

PmeI FseI

--- GAA GAA AGA GTT TAA ACGCGCGGCCGCGAGCT  
- - - E E B V Stop

ACCN: NM\_016347

**ORF Size:** 681 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22µm filter is required.

**RefSeq:** NM\_016347.1, NP\_057431.1

RefSeq Size: 830 bp

RefSeq ORF: 684 bp

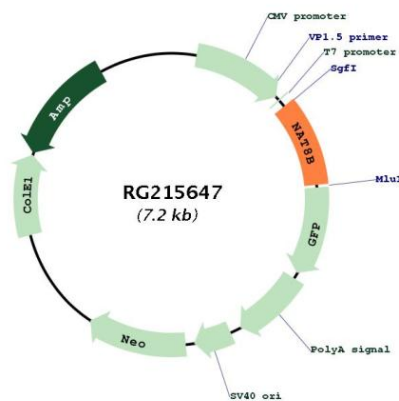
Locus ID: 51471

UniProt ID: [Q9UHF3](#)

Cytogenetics: 2p13.1

**Gene Summary:** The protein encoded by this gene is highly similar to the N-acetyltransferase 8 (NAT8) gene product, which is a kidney and liver protein with homology to bacterial acetyltransferases involved in drug resistance. This gene is localized on chromosome 2 in the vicinity of the NAT8 gene and may represent a pseudogene of NAT8. This gene contains two polymorphic nonsense mutations that disrupt the active site of the protein. The full-length product of this gene contains a complete acetyltransferase domain and is identical in length to NAT8. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG215647