

## Product datasheet for **RG210219**

### alpha 5 Defensin (DEFA5) (NM\_021010) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** alpha 5 Defensin (DEFA5) (NM\_021010) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** alpha 5 Defensin  
**Synonyms:** DEF5; HD-5  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG210219 representing NM\_021010  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGGACCATCGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCAGGCTGAGTCACTCCAGG  
 AAAGAGCTGATGAGGCTACAACCCAGAAGCAGTCTGGGAAGACAACCAGGACCTTGCTATCTCCTTTGC  
 AGGAAATGGACTCTCTGCTCTTAGAACCTCAGGTTCTCAGGCAAGAGCCACCTGCTATTGCCGAAGTGGC  
 CGTTGTGCTACCCGTGAGTCCCTCTCCGGGTGTGTGAAATCAGTGGCCGCTCTACAGACTCTGCTGTC  
 GC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG210219 representing NM\_021010  
 Red=Cloning site Green=Tags(s)  
 MRTIAILAAIILLVALQAQESLQERADEATTQKQSGEDNQDLAISFAGNLSALRTSGSQARATCYCRTG  
 RCATRESLSGVCEISGRLYRLCCR

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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Cloning Scheme:



ACCN: NM\_021010

ORF Size: 282 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\\_021010.1](#), [NP\\_066290.1](#)

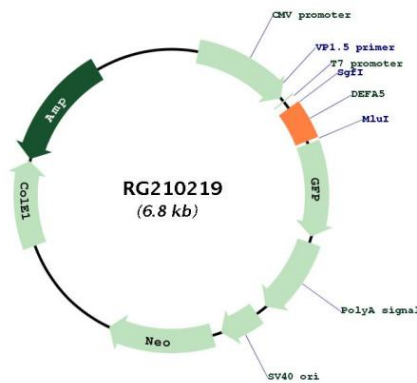
RefSeq Size: 449 bp

RefSeq ORF: 285 bp

Locus ID: 1670  
 UniProt ID: [Q01523](#)  
 Cytogenetics: 8p23.1  
 Protein Families: Secreted Protein

**Gene Summary:** Defensins are a family of antimicrobial and cytotoxic peptides thought to be involved in host defense. They are abundant in the granules of neutrophils and also found in the epithelia of mucosal surfaces such as those of the intestine, respiratory tract, urinary tract, and vagina. Members of the defensin family are highly similar in protein sequence and distinguished by a conserved cysteine motif. Several of the alpha defensin genes appear to be clustered on chromosome 8. The protein encoded by this gene, defensin, alpha 5, is highly expressed in the secretory granules of Paneth cells of the ileum. [provided by RefSeq, Oct 2014]

**Product images:**



Circular map for RG210219