

# **Product datasheet for RG235601**

### OriGene Technologies, Inc.

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## alpha Defensin 1 (DEFA1B) (NM\_001302265) Human Tagged ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** alpha Defensin 1 (DEFA1B) (NM\_001302265) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: alpha Defensin 1
Synonyms: HNP-1; HP-1; HP1

Mammalian Cell Neomycin

Selection:

**Vector:** pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG235601 representing NM\_001302265.

Sequence: Blue=ORF Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGAGGATGGTGACCCCAGCCATGAGGACCCTCGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCCAGGCTGAGCCACCCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCAGGCCCAGGACCATCCCAGGACAGCATTGCCAGGACAAGCATTGCAGGAAAAAACATGGCCTGCTATTGCAGAATACCAGCGTGCATTGCAGGAGAACGTCGCTATGGAACCTGCATCTAC

CAGGGAAGACTCTGGGCATTCTGCTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

Protein Sequence: >Peptide sequence encoded by RG235601

Blue=ORF Red=Cloning site Green=Tag(s)

MRMVTPAMRTLAILAAILLVALQAQAEPLQARADEVAAAPEQIAADIPEVVVSLAWDESLAPKHPGSRK

NMACYCRIPACIAGERRYGTCIYQGRLWAFCC

TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA

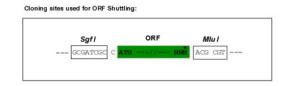
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

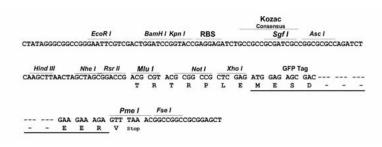
Restriction Sites: Sgfl-Mlul





#### **Cloning Scheme:**





**ACCN:** NM\_001302265

ORF Size: 303 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).

RefSeq: NM 001302265.1, NP 001289194.1

RefSeq Size: 542 bp
RefSeq ORF: 306 bp
Locus ID: 728358
Cytogenetics: 8p23.1

**Protein Families:** Druggable Genome

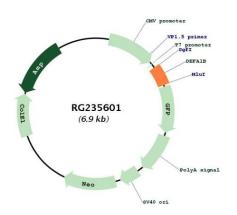
**MW**: 11.4 kDa



#### **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. The protein encoded by this gene, defensin, alpha 1, is found in the microbicidal granules of neutrophils and likely plays a role in phagocyte-mediated host defense. Several alpha defensin genes are clustered on chromosome 8. This gene differs from defensin, alpha 3 by only one amino acid. This gene and the gene encoding defensin, alpha 3 are both subject to copy number variation. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2014]

### **Product images:**



Circular map for RG235601