

Product datasheet for RC218421

alpha Defensin 1 (DEFA1) (NM_004084) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Defensin 1 (DEFA1) (NM_004084) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha Defensin 1
Synonyms:	DEF1; DEFA2; HNP-1; HP-1; HP1; MRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218421 representing NM_004084 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGAGGACCCTCGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCCAGGCTGAGCCACTCCAGGCAAGAGCTGATGAGGTTGCTGCAGCCCCGAGCAGATTGCAGCGGACATCCAGAAGTGGTTGTTCCCTTGCATGGGACGAAAGCTTGGCTCCAAGCATCCAGGCTCAAGGAAAAACATGGACTGCTATTGCAGAATCCAGCGTGCATTGCAGGAGAACGTGCTATGGAACCTGCATCTACCAGGGAAGACTCTGGCATTCTGCTGC ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA >RC218421 representing NM_004084 Red=Cloning site Green=Tags(s) MRTLAILAAILLVALQAQAEPLQARADEVAAAEPEQIAADIPVVVSLAWDESLAPKHPGSRKNMDCYCRI PACIAGERRYGTCTIYQGRWFACC TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Protein Sequence:	
Chromatograms:	https://cdn.origene.com/chromatograms/mk6045_e08.zip
Restriction Sites:	SgfI-MluI



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Cloning Scheme:


ACCN: NM_004084

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_004084.3](#)

RefSeq Size: 490 bp

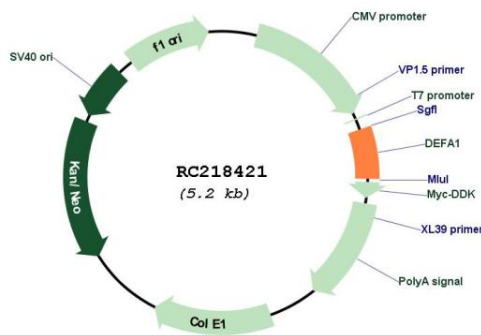
RefSeq ORF: 285 bp

Locus ID: 1667

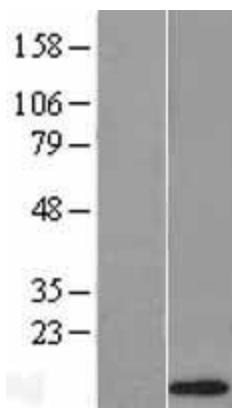
UniProt ID: [P59665](#)
 Cytogenetics: 8p23.1
 Domains: Defensin_propep, DEFSN, defensins
 Protein Families: Druggable Genome, Secreted Protein
 MW: 10 kDa

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. [provided by RefSeq, Oct 2014]

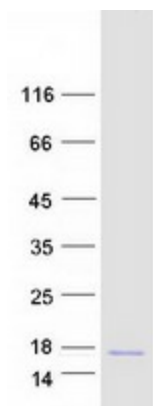
Product images:



Circular map for RC218421



Western blot validation of overexpression lysate (Cat# [LY418227]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218421 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DEFA1 protein (Cat# [TP318421]). The protein was produced from HEK293T cells transfected with DEFA1 cDNA clone (Cat# RC218421) using MegaTran 2.0 (Cat# [TT210002]).