

# Recombinant Human Defensin, Alpha 1

Cat. No. DEFA1-955H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant human alpha-defensin-2 (NP-1) produced in <i>E. Coli</i> is an antimicrobial peptide which belongs to the distinct family of alpha-defensins. Human NP-1 is a 3.4 kDa protein containing 30 amino acid residues.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	Neutrophil defensin 1 is a protein that in humans is encoded by the DEFA1 gene. Defensins are a family of microbicidal 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.
<b>Purity</b>	95 % (SDS-PAGE, HPLC).
<b>Endotoxin Level</b>	< 0.1 ng per ug of NP-1.
<b>Stabilizer</b>	None.
<b>Formulation</b>	Lyophilized.
<b>Biological Activity</b>	Determined by its ability to chemoattract immature dendritic cells using a concentration of 1-10.0 ng/ml.

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**Reconstitution** The human NP-1 should be reconstituted in water to a concentration of 0.1-1.0 mg/ml. This solution can be diluted into other buffer solutions or stored at -20°C. For most in vitro applications, NP-1 exerts its biological activity in the concentration range of 0.1 to 20.0 ng/ml.

**Stability** The lyophilized human NP-1, though stable at room temperature, is best stored desiccated below 0°C. Reconstituted NP-1 should be stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** DEFA1 defensin, alpha 1 [ Homo sapiens ]

**Synonyms** defensin, alpha 2; MRS; DEF1; HP-1; DEFA2; HNP-1; MGC138393; DEFA1; OTTHUMP00000196017; myeloid-related sequence; defensin, alpha 1, myeloid-related sequence; HP1

**Gene ID** 1667

**mRNA Refseq** NM\_004084

**Protein Refseq** NP\_004075

**MIM** 125220

**UniProt ID** P59665

**Chromosome Location** 8p23.1

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