

## DEFA3/Defensin alpha 3 Protein, Human (HEK293, Fc)

<b>Cat. No.:</b>	HY-P76870
<b>Synonyms:</b>	Neutrophil defensin 3; HNP-3; Neutrophil defensin 2; HNP-2; DEF3
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P59666 (D39-C94)
<b>Gene ID:</b>	1668
<b>Molecular Weight:</b>	Approximately 36 kDa.

### PROPERTIES

<b>AA Sequence</b>	D I P E V V V S L A      W D E S L A P K H P      G S R K N M D C Y C      R I P A C I A G E R R Y G T C I Y Q G R      L W A F C C
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>The DEFA3/Defensin alpha 3 Protein functions as a potent effector molecule within the innate immune system, leveraging antibiotic-like properties to combat a broad spectrum of infectious agents, including bacteria, fungi, and viruses. Notably, it exhibits the capability to neutralize bacterial toxins such as B. anthracis lethal factor, Clostridium difficile cytotoxin B, and Staphylococcus aureus leukocidin. Additionally, DEFA3 plays a pivotal role in blocking herpes simplex virus infection by interacting with envelope glycoprotein B, preventing its attachment to heparan sulfate, a key receptor for viral attachment. This multifaceted immune activity underscores the protein's significance in host defense. DEFA3 operates as a dimer, showcasing its structural organization in executing its diverse antimicrobial functions.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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