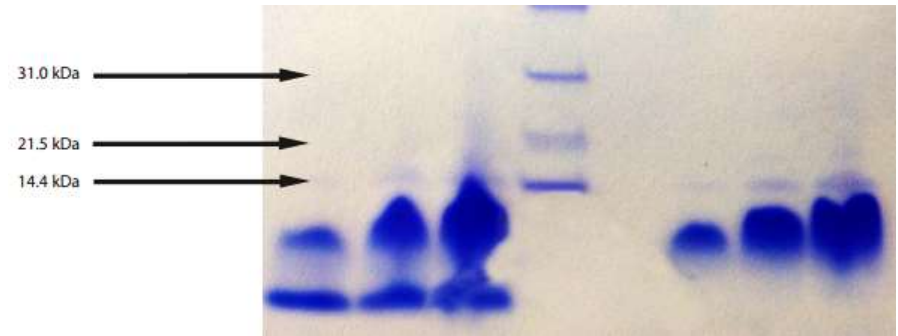


Defensins, Alpha, Mixed from Human Neutrophils (HNP, Human Neutrophil Peptides)

CATALOG NO:	7289-25	25 µg
SOURCE:	Human Neutrophil. Prepared from whole blood shown to be non-reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.	
PURITY:	≥ 95% by SDS-PAGE	
MOL. WEIGHT:	< 3.5 kDa	
EXTINCTION COEFFICIENT:	2.95	
FORM:	Frozen.	
FORMULATION:	Frozen in 1 M acetic acid.	
STORAGE CONDITIONS:	Aliquot and store at -70°C or lower. Avoid repeated freezing and thawing cycles.	

DESCRIPTION: Alpha defensins are a family of mammalian defensin peptides. In general, defensins are small cysteine-rich cationic proteins found in both vertebrates and invertebrates. These mixed alpha defensins are purified from human neutrophils. These peptides are active in killing bacteria, fungi, and enveloped viruses, and therefore, enable the neutrophils to inactivate and destroy potential pathogens. Defensins damage or kill ingested microbes by penetrating the microbial's cell membrane by way of electrical attraction, and consequently forming pores in the membrane. Human neutrophil-derived alpha-defensins (HNPs) are capable of enhancing phagocytosis by mouse macrophages. HNP1-3 have been reported to increase the production of tumor necrosis factor (TNF) and IL-1, while decreasing the production of IL-10 by monocytes. Increased levels of proinflammatory factors (e.g., IL-1, TNF, histamine and prostaglandin D2) and suppressed levels of IL-10 at the site of microbial infection are likely to amplify local inflammatory responses. This might be further reinforced by the capacity of some human and rabbit alpha-defensins to inhibit the production of immunosuppressive glucocorticoids by competing for the binding of adrenocorticotrophic hormone to its receptor. Moreover, human alpha-defensins can enhance or suppress the activation of the classical pathway of complement in vitro by binding to solid-phase or fluid-phase complement C1q, respectively. The capacity of defensins to enhance phagocytosis,

promote neutrophil recruitment, enhance the production of proinflammatory cytokines, suppress anti-inflammatory mediators and regulate complement activation argues that defensins upregulate innate host inflammatory defenses against microbial invasion.



Defensins, Alpha, Mixed from Human Neutrophils

- 4-12% Bis-Tris NuPAGE gel
1. Defensins - 5 µg (reduced / heated)
 2. Defensins - 10 µg (reduced / heated)
 3. Defensins - 20 µg (reduced / heated)
 4. LMW Standard
 5. Defensins - 5 µg (non reduced / no heat)
 6. Defensins - 10 µg (non reduced / no heat)
 7. Defensins - 20 µg (non reduced / no heat)

RELATED PRODUCTS:

- Anisomycin (Cat. No. 1549-10)
- Ascomycin (Cat. No. 1573-2)
- Brefeldin A (Cat. No. 1560-5)
- Cycloheximide (Cat. No. 1041-1, -1G)
- Cyclosporine A (Cat. No. 1522-100)
- Ionomycin, Calcium Salt (Cat. No. 1566-5)
- Ionomycin, Free Acid (Cat. No. 1565-5)
- Monensin Methyl Ester (Cat. No. 1808-50, 250)
- Nigericin sodium salt (Cat. No. 2096-5, 25)
- Valinomycin (Cat. No. 2238-10, 50)

FOR RESEARCH USE ONLY. Not to be used in humans



