

## Innovative Research, Inc.

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# Certificate of Analysis

**Product:** Human Neutrophil Elastase – HNE

**Date:** 27 February, 2002

**Lot:** HNE

**Molecular Weight:** 29,500 by SDS PAGE

### Specifications:

Chromatographically purified. Lyophilized, salt-free, soluble powder.

### Diluents and Stability:

1. 1mg/ml in 0.05M NaOAc pH 5 containing 0.1M NaCl. Stable at least 7 days in 5°C (in ice).
2. 10mg/ml in 50% glycerol, 50% 0.02M NaOAc pH 5. Stable at least 60 days at -20°C with 20 cycles between -20°C and 5°C.
3. May be dissolved at 10mg/ml in 2mM HoAc and re-lyophilized in smaller quantities. Stability is better in acidic (pH 5) than basic buffers. Inactivation may occur at pH 8 due to autolysis and/or proteolysis by trypsin such as bovine pancreatic trypsin.

### Preparation:

Purulent human sputum is fractionated with NaCl and treated with DNase to release DNA-bound proteins. The elastase is purified by affinity chromatography on Agraose-DAPSA-Elastin and separated from cathepsins by ion exchange chromatography. The elastase is further purified by affinity chromatography on agraose-alanyl-alanyl-alanine. The elastase is free of cathepsin G activity when assayed with Suc-Ala-Ala-Pro-Phe-pNA.

### Considerations:

Storage Conditions: Store at 5°C – stability > 1yr  
Buffer Composition: 0.05 M Sodium Phosphate; 0.1 M NaCl; 1 mM EDTA; pH 5.0  
Other: > 95% pure by SDS PAGE