

PRODUCT INFORMATION



N-acetyl-Pro-Gly-Pro Peptide

Item No. 11189

Synonym:	N-acetyl-PGP
FW:	311.3
Purity:	≥95%
Supplied as:	A lyophilized powder
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N-acetyl-Pro-Gly-Pro Peptide (N-acetyl-PGP) is supplied as a lyophilized powder. A stock solution may be made by dissolving the N-acetyl-PGP in water. The solubility of N-acetyl-PGP in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N-acetyl-PG is a tripeptide that functions as a neutrophil chemoattractant.^{1,2} N-acetyl-PGP and PGP induce the recruitment of neutrophils (PMN) through stimulation of chemokine CXC receptors.² N-acetyl-PGP is derived from the breakdown of extracellular matrix (ECM) and shares sequence and structural homology with a domain on alpha chemokines.² Breakdown of collagen in the lungs leads to the production of PGP metabolites. Such metabolites have been seen in substantially higher concentrations from bronchoalveolar lavage (BAL) samples of individuals with chronic obstructive pulmonary disease (COPD) and cystic fibrosis relative to control patients.¹ The increased production of the pro-inflammatory PGP exacerbates the inflammatory process leading to increased neutrophil recruitment in airway inflammation. These data suggest that N-acetyl-PGP or PGP may be useful biomarkers and potential therapeutic targets for neutrophilic inflammatory diseases.³

References

1. O'Reilly, P., Jackson, P.L., Noerager, B., *et al.* N-a-PGP and PGP, potential biomarkers and therapeutic targets for COPD. *Respir. Res.* **10**, 1-8 (2009).
2. Weathington, N.M., van Houwelingen, A.H., Noerager, B.D., *et al.* A novel peptide CXCR ligand derived from extracellular matrix degradation during airway inflammation. *Nat. Med.* **12**(3), 317-323 (2006).
3. Yoon, H.I. and Sin, D.D. Biomarkers of therapeutic response in patients with chronic obstructive pulmonary disease: A critical review of the literature. *Drugs* **71**(14), 1821-1837 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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