

---

## Product Data Sheet

---

Product Name: Peptide 78

Cat. No.: GC63347

### Chemical Properties

Cas. No. 132116-62-2

Formula  $C_{62}H_{107}N_{23}O_{21}S$

M.Wt 1542.72

Solubility Water : 100 mg/mL (64.82 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

Peptide 78, a chemotactic cytokine, a 78 amino acid protein member of the IL-8 or C-X-C chemokine supergene family. ENA-78 plays an important role in the elicitation of predominantly neutrophils (PMNs) into the joints of rheumatoid arthritis (RA)[1].

Peptide 78, a potent PMN chemotaxin, in the conditioned medium of human pulmonary epithelial cells (A549) stimulated with TNF- $\alpha$  (20 ng/mL) or IL-1 $\beta$  (10 ng/mL). Peptide 78 is an 8.3-kD protein with 78 amino acids containing 4 cysteines positioned identically to those of IL-8 and its homologues. Peptide 78 belongs to a supergene family that includes platelet factor-4, platelet basic protein, and its cleavage products (connective tissue activating peptide-III,  $\beta$ -thromboglobulin, and interferon- $\gamma$ -inducible protein, macrophage inflammatory protein-2 $\alpha$ , and macrophage inflammatory protein-2 $\beta$ )[1]. Peptide 78 shares several properties of PMN activation similar to either NAP-2 or LL-8. Peptide 78 stimulation of PMNs results in significant chemotactic activity, release of elastase from cytochalasin-B-pretreated cells, and the induction of free, cytosolic calcium release. Peptide 78 aids in the recruitment of PMNs into inflamed joints of RA. Peptide 78 represents one of the most abundant chemokines present in RA synovial fluid. Peptide 78 in rheumatoid arthritis synovial fluids is biologically active. Peptide 78 appears to account for almost half of the RA synovial fluid PMN chemotactic activity in vitro[1].

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

[1]. A E Koch, et al. Epithelial neutrophil activating peptide-78: a novel chemotactic cytokine for neutrophils in arthritis. J Clin Invest. 1994 Sep;94(3):1012-8.

**Caution: Product has not been fully validated for medical applications. For research use only.**

**Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com**

**Address: 10292 Central Ave. #205, Montclair, CA, USA**