Peptide 78

Cat. No.: HY-P2642

CAS No.: 132116-62-2

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

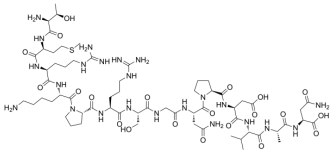
Molecular Weight: 1542.72

Sequence Shortening: TMRKPRSGNPDVAN

Target: Others

Pathway: Others

Storage: Sealed storage, away from moisture
Powder -80°C 2 years
-20°C 1 year
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (64.82 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	0.6482 mL	3.2410 mL	6.4821 mL
	5 mM	0.1296 mL	0.6482 mL	1.2964 mL
	10 mM	0.0648 mL	0.3241 mL	0.6482 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
Solubility: 100 mg/mL (64.82 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

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].

In Vitro

Peptide 78, a potent PMN chemotaxin, in the conditioned medium of human pulmonary epithelial cells (A549) stimulated with TNF-α (20 ng/mL) or IL-1β (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, β-thromboglobulin, and interferon-γ-inducible protein, macrophage inflammatory protein-2α, and macrophage inflammatory protein-2β)[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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[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.

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