

PRODUCT INFORMATION



TNF- α Antagonist

Item No. 17492

CAS Registry No.: 199999-60-5

Formal Name: L-tyrosyl-L-cysteinyl-L-tryptophyl-L-seryl-L-glutaminy-L-tyrosyl-L-leucyl-L-cysteinyl-L-tyrosine cyclic (2 \rightarrow 8)-disulfide

Synonym: WP9QY

Peptide Sequence: YCWSQYLCY

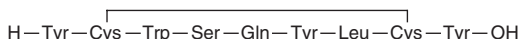
MF: C₅₈H₇₁N₁₁O₁₅S₂

FW: 1,226.4

Supplied as: A crystalline solid

Storage: -20°C

Stability: \geq 4 years



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

Laboratory Procedures

TNF- α Antagonist is supplied as a crystalline solid. A stock solution may be made by dissolving the TNF- α antagonist in the solvent of choice, which should be purged with an inert gas. TNF- α Antagonist is soluble in the organic solvent DMSO at a concentration of approximately 5 mg/ml.

TNF- α Antagonist is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TNF- α antagonist should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TNF- α Antagonist has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TNF- α antagonist is an exocyclic peptide that mimics the critical TNF- α recognition loop on TNF receptor I complex and, thus, prevents ligand interaction with the receptor.¹ By blocking the TNF receptor ligand contact site, this peptide interferes with both activating receptor activator of NF- κ B (RANK) and TNF- α 's recruitment and activation of osteoclasts.² TNF- α antagonist has been used to block bone resorption in the study of systemic bone loss in rheumatoid arthritis and inflammatory bone destruction.²

References

1. Takasaki, W., Kajino, Y., Kajino, K., *et al.* Structure-based design and characterization of exocyclic peptidomimetics that inhibit TNF α binding to its receptor. *Nat. Biotechnol.* **15**(12), 1266-1270 (1997).
2. Aoki, K., Saito, H., Itzstein, C., *et al.* A TNF receptor loop peptide mimic blocks RANK ligand-induced signaling, bone resorption, and bone loss. *J. Clin. Invest.* **116**(6), 1525-1534 (2006).

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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