

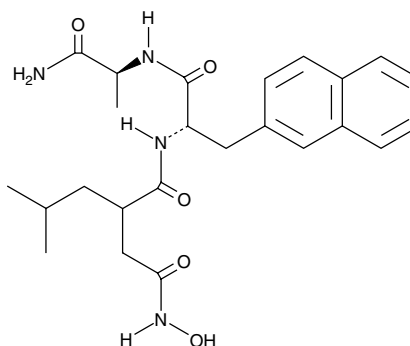
Product Information



TAPI-0

Item No. 14694

CAS Registry No.: 143457-40-3
Formal Name: N-[2-[2-(hydroxyamino)-2-oxoethyl]-4-methyl-1-oxopentyl]-3-(2-naphthalenyl)-L-alanyl-L-alaninamide
Synonym: TNF Protease Inhibitor 0
MF: C₂₄H₃₂N₄O₅
FW: 456.5
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 226 nm



Laboratory Procedures

For long term storage, we suggest that TAPI-0 be stored as supplied at -20°C. It should be stable for at least two years.

TAPI-0 is supplied as a crystalline solid. A stock solution may be made by dissolving the TAPI-0 in the solvent of choice. TAPI-0 is soluble in organic solvents such as DMSO and methanol, which should be purged with an inert gas. The solubility of TAPI-0 in these solvents is approximately 5 and 1 mg/ml, respectively.

TNF-α converting enzyme (TACE) cleaves the membrane-bound precursor of TNF-α to give the mature soluble form of TNF-α.^{1,2} TAPI-0 is an inhibitor of TACE (IC₅₀ = 50-100 nM) as well as other matrix and membrane metalloproteases.^{1,3} For example, it inhibits meprin (K_i value for human meprin α is 2.2 μM).⁴ Through these actions TAPI-0 blocks the maturation of cytokines, soluble cytokine receptors, and other proteins that require the action of proteases.^{2-3,5}

References

1. Mohler, K.M., Sleath, P.R., Fitzner, J.N., *et al.* Protection against a lethal dose of endotoxin by an inhibitor of tumour necrosis factor processing. *Nature* **370(6486)**, 218-220 (1994).
2. Müllberg, J., Durie, F.H., Otten-Evans, C., *et al.* A metalloprotease inhibitor blocks shedding of the IL-6 receptor and the p60 TNF receptor. *J. Immunol.* **155(11)**, 5198-5205 (1995).
3. Hooper, N.M., Karran, E.H., and Turner, A.J. Membrane protein secretases. *Biochem. J.* **321(2)**, 265-279 (1997).
4. Kruse, M.-N., Becker, C., Lottaz, D., *et al.* Human meprin α and β homo-oligomers: Cleavage of basement membrane proteins and sensitivity to metalloprotease inhibitors. *Biochem. J.* **378(1)**, 383-389 (2004).
5. Kagawa, K., Nakano, A., Miki, H., *et al.* Inhibition of TACE activity enhances the susceptibility of myeloma cells to TRAIL. *PLoS One* **7(2)**, e31594 (2012).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14694

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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