

PRODUCT INFORMATION



proTAME

Item No. 25835

CAS Registry No.: 1362911-19-0
Formal Name: (2S)-2-[[[(4-methylphenyl)sulfonyl]amino]-9,13-dioxo-14-phenyl-7-[[[(2-phenylacetyl)oxy]methoxy]carbonyl]amino]-10,12-dioxo-6,8-diazatetradec-6-enoic acid, methyl ester

Synonym: Pro-N-4-tosyl-L-arginine methyl ester

MF: C₃₄H₃₈N₄O₁₂S

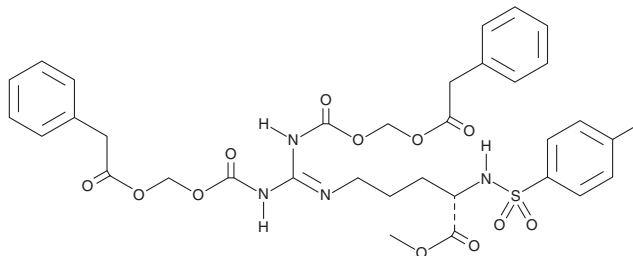
FW: 726.8

Purity: ≥90%

Supplied as: A solution in methyl acetate

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

proTAME is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. proTAME is soluble in DMSO.

Description

proTAME is a cell-permeable prodrug form of N-4-tosyl-L-arginine methyl ester (TAME; Item No. 17550), an inhibitor of the anaphase-promoting complex/cyclosome (APC/C), that is converted to TAME by intracellular esterases.^{1,2} proTAME (12 μM) blocks association of APC/C with the activator CDH1 and inhibits degradation of APC/C substrates in HeLa cells.¹ It induces mitotic arrest in metaphase followed by cell death in synchronized HeLa H2B-GFP cells when used at a concentration of 12 μM. It also increases mitotic duration in asynchronous HeLa H2B-GFP cells at a concentration of 4 μM, an effect that is enhanced by knockdown of the APC/C co-activator CDC20. proTAME decreases the viability of several laboratory and primary patient-derived human multiple myeloma (MM) cell lines (IC₅₀s = 2.8-20.3 μM) and increases apoptosis in RPMI-8226, LP-1, NCI-H929, and U266 MM cells when used at a concentration of 12 μM.²

References

1. Zeng, X., Sigoillot, F., Gaur, S., *et al.* Pharmacologic inhibition of the anaphase-promoting complex induces a spindle checkpoint-dependent mitotic arrest in the absence of spindle damage. *Cancer Cell* **18(4)**, 382-395 (2010).
2. Lub, S., Maes, A., De Veirman, K., *et al.* Inhibiting the anaphase promoting complex/cyclosome induces a metaphase arrest and cell death in multiple myeloma cells. *Oncotarget* **7(4)**, 4062-4076 (2016).

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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