PRODUCT INFORMATION



N-4-Tosyl-L-arginine methyl ester (hydrochloride)

Item No. 17550

CAS Registry No.:	1784-03-8	
Formal Name:	N ² -[(4-methylphenyl)sulfonyl]-	
	L-arginine, methyl ester, monohydrochloride	
Synonyms:	TAME, Tosylarginine methyl ester	NH T II I
MF:	$C_{14}H_{22}N_4O_4S \bullet HCI$	
FW:	378.9	H_2N' N' \checkmark S \checkmark
Purity:	≥98%	н 🔶 🖒 Ó ́ ́ Ó •нсі
UV/Vis.:	λ _{may} : 228 nm	
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
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Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N-4-Tosyl-L-arginine methyl ester (TAME) (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the TAME (hydrochloride) in the solvent of choice, which should be purged with an inert gas. TAME (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TAME (hydrochloride) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of TAME (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of TAME (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

TAME is a synthetic substrate of serine proteases, including thrombin, trypsin, chymotrypsin, and kallikreins.¹⁻³ It can be used to evaluate serine proteases from diverse sources.⁴ TAME also binds to and inhibits anaphase-promoting complex, a ubiquitin ligase, in Xenopus egg extract.^{5,6}

References

- 1. Hummel, B.C. Can. J. Biochem. Physiol. 37, 1393-1399 (1959).
- 2. Matsuda, Y., Miyazaki, K., Moriya, H., et al. J. Biochem. 80(4), 671-679 (1976).
- 3. Esmon, C.T., Esmon, N.L., and Harris, K.W. J. Biol. Chem. 257(14), 7944-7947 (1982).
- 4. Morgado-Díaz, J.A., da Silvia-Lopez, R.E., Alves, C.R., et al. Mem. Inst. Oswaldo Cruz 100(4), 377-383 (2005).
- 5. Zeng, X., Sigoillot, F., Gaur, S., et al. Cancer Cell 18(4), 382-395 (2010).
- 6. Zeng, X. and King, R.W. Nat. Chem. Biol. 8(4), 383-392 (2012).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY 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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