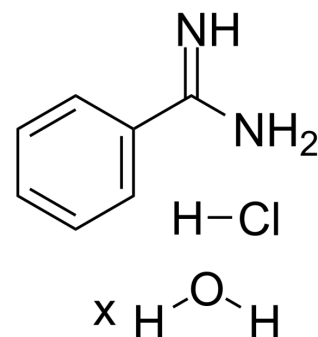


Benzamidinium hydrochloride hydrate

Cat. No.:	HY-W087937		
CAS No.:	206752-36-5		
Molecular Formula:	C ₇ H ₈ N ₂ .ClH.xH ₂ O		
Target:	Ser/Thr Protease		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (Need ultrasonic)
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Benzamidinium (Benzenecarboximidamide) hydrochloride hydrate is a reversible competitive trypsin-like serine proteases inhibitor with K _i s of 20, 21, 97, 110, 320 and 750 μM against Tryptase, Trypsin, uPA, Factor Xa, Thrombin and tPA, respectively [1][2].
IC₅₀ & Target	K _i : 20 μM (Tryptase), 21 μM (Trypsin), 97 μM (uPA), 110 μM (Factor Xa), 320 μM (Thrombin), 750 μM (tPA)[1]
In Vitro	Benzamidinium hydrochloride hydrate (50 μM) reduces [³ H]thymidine incorporation in fibroblasts, suggesting dependency on an active catalytic site. Benzamidinium hydrochloride hydrate reduces the ability of tryptase to stimulate collagen synthesis[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Invest Dermatol. 2023 Jul 21;S0022-202X(23)02422-3.
- J Biol Chem. 2023 Sep 1;105211.

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REFERENCES

- [1]. Katz BA, et al. Structural basis for selectivity of a small molecule, S1-binding, submicromolar inhibitor of urokinase-type plasminogen activator. Chem Biol. 2000 Apr;7(4):299-312.
- [2]. J A Cairns, et al. Mast cell tryptase stimulates the synthesis of type I collagen in human lung fibroblasts. J Clin Invest. 1997 Mar 15;99(6):1313-21.
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Caution: Product has not been fully validated for medical applications. For research use only.

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