p-Aminophenylmercuric acetate

Cat. No.: HY-148905

CAS No.: 6283-24-5

Molecular Formula: $C_8H_9HgNO_2$

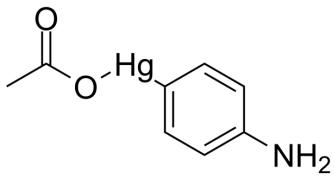
Molecular Weight: 351.75

Target: Cathepsin

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 (284.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8429 mL	14.2146 mL	28.4293 mL
	5 mM	0.5686 mL	2.8429 mL	5.6859 mL
	10 mM	0.2843 mL	1.4215 mL	2.8429 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (5.91 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

p-Aminophenylmercuric acetate is an organomercurial activator of matrix metalloproteinases (MMP). P-Aminophenylmercuric acetate participates in the activation and inhibition of MMP-8 by attacking protein sulfhydryl or inducing cysteine switching reaction. p-Aminophenylmercuric acetate promotes the shedding of betacellulin precursor (pro-BTC). p-Aminophenylmercuric acetate influences the binding of agonists and antagonists to the opiate receptor[1][2][3].

In Vitro

p-Aminophenylmercuric acetate (APMA) (0-30 μM; 20 min) decreases the apparent number of dihydromorphine binding sites and increases the sensitivity of agonist binding to the inhibitory effects of sodium in rat brain homogenate[2].
p-Aminophenylmercuric acetate (0.5 mM; 30 min) activates the MMP-2 and MMP-9[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sanderson M P, et al. ADAM10 mediates ectodomain shedding of the betacellulin precursor activated by p-aminophenylmercuric acetate and extracellular calcium influx[J]. Journal of Biological Chemistry, 2005, 280(3): 1826-1837.

[2]. PASTERNAK G W, et al. Differential effects of protein-modifying reagents on receptor binding of opiate agonists and antagonists[J]. Molecular Pharmacology, 1975, 11(3): 340-351.

[3]. Gendron R, et al. Inhibition of the activities of matrix metalloproteinases 2, 8, and 9 by chlorhexidine[J]. Clinical Diagnostic Laboratory Immunology, 1999, 6(3): 437-439.

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