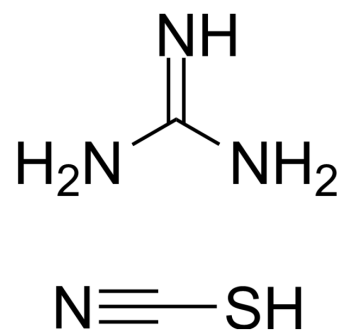


Guanidine thiocyanate

Cat. No.:	HY-D0841		
CAS No.:	593-84-0		
Molecular Formula:	C ₂ H ₆ N ₄ S		
Molecular Weight:	118.16		
Target:	Endogenous Metabolite		
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 (846.31 mM; Need ultrasonic)
 H₂O : 100 mg/mL (846.31 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		8.4631 mL	42.3155 mL	84.6310 mL
	5 mM		1.6926 mL	8.4631 mL	16.9262 mL
	10 mM		0.8463 mL	4.2316 mL	8.4631 mL

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

BIOLOGICAL ACTIVITY

Description

Guanidine thiocyanate is a strong protein denaturant and potent inhibitor of nucleases. Guanidinium thiocyanate is a nucleic acid protector in the extraction of DNA and RNA from cells. Guanidine thiocyanate is a common component of buffers used for nucleic acid extraction^[1].

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

Guanidine thiocyanate based-nucleic acid extraction buffers can effectively inactivate high-consequence enveloped viruses, such as Ebola virus, Marburg virus, and Rift Valley Fever virus, as well as West Nile virus, influenza, Venezuelan equine encephalitis virus, and recently, SARS-CoV-2^[1].

Guanidine thiocyanate-based nucleic acid extraction buffers are an effective means of inactivating poliovirus infectious materials and potentially infectious materials^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Virus Res. 2020 Jul 2;283:197974.
- Virol J. 2018 Jan 3;15(1):1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Michelle J Honeywood, et al. Use of guanidine thiocyanate-based nucleic acid extraction buffers to inactivate poliovirus in potentially infectious materials. J Virol Methods. 2021 Nov;297:114262.

Caution: Product has not been fully validated for medical applications. For research use only.

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