Guanidine thiocyanate

MedChemExpress

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

	No. 199			
	Solvent Mass Concentration	1 mg	5 mg	10 mg
Preparing Stock Solutions	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

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] .			
IC ₅₀ & 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.			

Product Data Sheet

 H_2N^{\frown}

NΗ

 NH_2

-SH

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

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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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