



Guanidine Thiocyanate (GTC)

At **SRL**, we are tirelessly working to fight the current COVID-19 pandemic and have remained committed to meet the needs of the research community. We are the right source for your **Guanidine Thiocyanate** requirements.

Guanidine Thiocyanate is a water and ethanol soluble reagent for various biological applications primarily to study and isolate DNA, RNA and Proteins.

Important Applications of Guanidine Thiocyanate (GTC)

COVID-19 & Viral Testing Kits:

In the current pandemic and the race for the vaccine, Guanidine Thiocyanate is a key research compound in COVID-19 testing kits that use the RT-PCR process to capture RNA sequences and break down proteins and cell structures. Guanidine Thiocyanate is used as a part of a lysis buffer solution which isolates and extracts the viral RNA from a sample. This allows for relatively quick diagnosis of the virus in a subject.

Protein Denaturant:

Denaturation is an induced state by external stressors or chemical compounds like Guanidine Thiocyanate. It is when the protein is stimulated to lose its structure or unfold. If proteins do not fold correctly and mutate, they won't be able to do their job, or worse, can become harmful or even deadly to the biological host. Guanidine Thiocyanate is used to unfold the protein structure in order to study it and its mechanisms.

Chaotropic Agent:

It can be added to water solutions with proteins and weaken their structure by way of weakening proteins hydrophobic properties.

Isolation and Extraction of RNA:

In genome research it is imperative to extract full and complete RNA sequences, but unfortunately, the presence of RNase in RNA catalyzes the breakdown of these strands, which can make it impossible to study them. Using Guanidine Thiocyanate in varying methods to isolate and pull intact strand samples in a relatively short amount of time is proven to be extremely effective and preferable.

Prdt. Code	Product Name	CAS No.	Packing Unit
80272	Guanidine Thiocyanate (GTC) for molecular biology, 99% DNase, RNase, Protease not detected	593-84-0	100gms, 500gms, 1kg, 5kg

Specification:

Test Parameters	Standards
Appearance (Colour)	White
Appearance (Form)	Crystalline compound
Solubility (Turbidity) 6M aq. solution	Clear
Solubility (Colour) 6M aq. solution	Colourless
Assay	min. 99%
pH (6M aq. solution)	4.5 – 7.0
Melting Point	117 – 120°C
Sulphated Ash	max. 0.05%
Sulphate (SO4)	max. 0.005%
Iron (Fe)	max. 0.0005%
Heavy Metals (Pb)	max. 0.0005%
Water (KF)	max. 0.5%
DNase, RNase, Protease	Not detected

Not for medicinal use



* Bulk packs available on request

Please contact: