

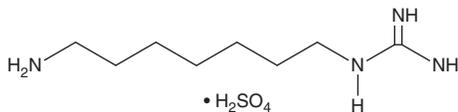
PRODUCT INFORMATION



GC7 (sulfate)

Item No. 34761

CAS Registry No.: 150417-90-6
Formal Name: (7-aminoheptyl)-guanidine, monosulfate
Synonym: N¹-Guanyl-1,7-diaminoheptane
MF: C₈H₂₀N₄ • H₂SO₄
FW: 270.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

GC7 (sulfate) is supplied as a solid. A stock solution may be made by dissolving the GC7 (sulfate) in the solvent of choice, which should be purged with an inert gas. GC7 (sulfate) is soluble in 10 mM acetic acid.

Description

GC7 is an inhibitor of deoxyhypusine synthase ($K_i = 9.7$ nM), an enzyme that participates in the biosynthesis of the amino acid hypusine, which is formed post-translationally on eukaryotic initiation factor 5A (eIF5A).¹ It inhibits the production of hypusine in CHO cells when used at a concentration of 1 μM. GC7 (20 μM) inhibits activation of eIF5A2 and enhances the cytotoxicity of doxorubicin in Huh7 and HepG2 cells.² It reduces tumor growth in a Melan-a Tm5 murine melanoma model when administered at a dose of 0.9 mg/kg.³

References

1. Jakus, J., Wolff, E.C., Park, M.H., *et al.* Features of the spermidine-binding site of deoxyhypusine synthase as derived from inhibition studies. Effective inhibition by *bis*- and *mono*-guanylated diamines and polyamines. *J. Biol. Chem.* **268(18)**, 13151-13159 (1993).
2. Lou, B., Fan, J., Wang, K., *et al.* N¹-guanyl-1,7-diaminoheptane (GC7) enhances the therapeutic efficacy of doxorubicin by inhibiting activation of eukaryotic translation initiation factor 5A2 (eIF5A2) and preventing the epithelial-mesenchymal transition in hepatocellular carcinoma cells. *Exp. Cell Res.* **319(17)**, 2708-2717 (2013).
3. Jasilionis, M.G., Luchessi, A.D., Moreira, A.G., *et al.* Inhibition of eukaryotic translation initiation factor 5A (eIF5A) hypusination impairs melanoma growth. *Cell Biochem. Funct.* **25(1)**, 109-114 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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