Mercaptoethylguanidine, hemisulfate salt

Product Number M 9940
Storage Temperature 2-8 °C

CAS# 3979-00-8
Synonym: MEG sulfate

Product Description
Formula: C₃H₉N₃S • ½ (H₂SO₄)
Formula Weight: 168.2
Purity: minimum 98% (TLC)

Mercaptoethylguanidine (MEG) is an inhibitor of the inducible isoform of nitric oxide synthase (iNOS) and a scavenger of peroxynitrite. Peroxynitrite and its reactive precursor, nitric oxide (NO), have been implicated as having a role in the inflammatory response to injury, the pathogenesis of various forms of shock, the initiation of cell damage leading to apoptosis in kidney sickle cells, and the dephosphorylation of critical components of the mitogen-activated protein (MAP) kinase pathways. Due to its inhibition and scavenging characteristics, MEG has been shown to exert beneficial effects when administered to combat *in vivo* inflammatory response.¹ MEG has also been shown to exert beneficial effects when administered to porcine models of severe hemorrhagic shock.

The EC₅₀ for inhibition of iNOS (LPS treated rat lung) is 11.5 µM, for eNOS (bovine endothelial) 110 µM, and for nNOS (rat brain) 60 µM.²

Precautions and Disclaimer
This product is for laboratory research purposes only. Please consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability
Storage at 2-8 °C is recommended. The product is hygroscopic, store desiccated.

References

JBB/MAM 8/02