Molsidomine
Item No. 82200

CAS Registry No.: 25717-80-0
Formal Name: N-(ethoxycarbonyl)-3-(4-morpholinyl)-sydnone imine
Synonyms: Corvaton, Morsydome
MF: C9H14N4O4
FW: 242.2
Purity: ≥99%
Stability: ≥1 year at room temperature
Supplied as: A crystalline solid
UV/Vis: λ\text{max} = 230, 319 nm

Laboratory Procedures
For long term storage, we suggest that molsidomine be stored as supplied at room temperature. It should be stable for at least one year.

Molsidomine is supplied as a crystalline solid. A stock solution may be made by dissolving the molsidomine in an organic solvent purged with an inert gas. Molsidomine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of molsidomine in these solvents is approximately 35, 70, and 13 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of molsidomine can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of molsidomine in PBS (pH 7.2) is approximately 9 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Molsidomine is a NO-releasing prodrug. Liver esterases convert molsidomine to the active metabolite, SIN-1 (half-life in plasma is 1-2 hours), which then releases NO.¹,²

References

Related Products
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