

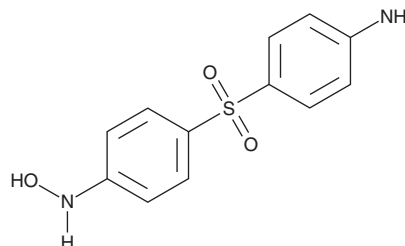
PRODUCT INFORMATION



N-hydroxylamine Dapsone

Item No. 35446

CAS Registry No.: 32695-27-5
Formal Name: 4-[(4-aminophenyl)sulfonyl]-N-hydroxy-benzenamine
Synonyms: Dapsone hydroxylamine, DDS-NHOH
MF: C₁₂H₁₂N₂O₃S
FW: 264.3
Purity: ≥98%
UV/Vis.: λ_{max}: 264, 298 nm
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

N-hydroxylamine Dapsone is supplied as a solid. A stock solution may be made by dissolving the N-hydroxylamine dapsone in the solvent of choice, which should be purged with an inert gas. N-hydroxylamine Dapsone is soluble in DMSO.

Description

N-hydroxylamine Dapsone is an active metabolite of dapsone (Item No. 23743).¹ It is formed via N-hydroxylation of dapsone by the cytochrome P450 (CYP) isoforms CYP2C8, CYP2C9, CYP2C18, and CYP2C19 in the liver.² N-hydroxylamine Dapsone is cytotoxic to rat hepatocytes (LC₅₀ = 3.6 mM).³ It induces hemolysis in isolated human erythrocytes at a concentration of 100 μM.¹ N-hydroxylamine Dapsone induces phosphatidylserine (PS) exposure on the outer membrane, a marker of apoptosis and platelet activation, and increases the production of reactive oxygen species (ROS) in a concentration-dependent manner in isolated human erythrocytes. It increases thrombus weight in a rat model of surgically induced thrombosis when administered at a single dose of 50 mg/kg or at a dose of 10 mg/kg per day for four days.

References

1. Bian, Y., Kim, K., An, G.-J., *et al.* Dapsone hydroxylamine, an active metabolite of dapsone, can promote the procoagulant activity of red blood cells and thrombosis. *Toxicol. Sci.* **172**(2), 435-444 (2019).
2. Winter, H.R., Wang, Y., and Unadkat, J.D. CYP2C8/9 mediate dapsone N-hydroxylation at clinical concentrations of dapsone. *Drug Metab. Dispos.* **28**(8), 865-868 (2000).
3. Veggi, L.M., Pretto, L., Ochoa, E.J., *et al.* Dapsone induces oxidative stress and impairs antioxidant defenses in rat liver. *Life Sci.* **83**(5-6), 155-163 (2008).

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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