

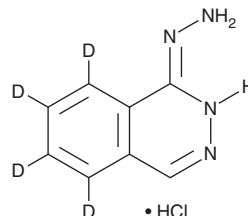
PRODUCT INFORMATION



Hydralazine-d₄ (hydrochloride)

Item No. 30765

CAS Registry No.: 2749234-32-8
Formal Name: 1-hydrazinyl-phthalazine-5,6,7,8-d₄, monohydrochloride
Synonym: 1-Hydrazinophthalazine-d₄
MF: C₈H₄D₄N₄ • HCl
FW: 200.7
Chemical Purity: ≥98% (Hydralazine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
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

Hydralazine-d₄ (hydrochloride) is intended for use as an internal standard for the quantification of hydralazine (Item No. 23121) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Hydralazine-d₄ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the hydralazine-d₄ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Hydralazine-d₄ (hydrochloride) is soluble in DMSO.

Description

Hydralazine is an orally bioavailable vasodilator and antihypertensive agent.¹ It decreases DNA methylation in Jurkat cells at a concentration of 10 μM and inhibits extracellular and intracellular production of reactive oxygen species (ROS) in rat macrophages activated by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) at a concentration of 100 μM.^{2,3} Hydralazine (100 μM) also decreases nitric oxide production and expression of inducible nitric oxide synthase (iNOS) in rat macrophages activated by LPS (Item Nos. 19660 | 19661 | 19662) and interferon-γ (IFN-γ).³ It reduces contraction of rat aortic arterial strips induced by potassium and norepinephrine (Item No. 16673; IC₅₀s = 2.2 and 3.06 mM, respectively).⁴ Hydralazine (2.6 mg/kg) lowers mean arterial blood pressure (MAP) by 41.76% in conscious rats.⁵ Formulations containing hydralazine have been used in the treatment of high blood pressure and heart failure.

References

1. Cohn, J.N., McInnes, G.T., and Shepherd, A.M. *J. Clin. Hypertens. (Greenwich)* **13**(9), 690-692 (2011).
2. Cornacchia, E., Golbus, J., Maybaum, J., et al. *J. Immunol.* **140**(7), 2197-2200 (1988).
3. Leiro, J.M., Alvarez, E., Arranz, J.A., et al. *Int. Immunopharmacol.* **4**(2), 163-177 (2004).
4. Orallo, F., Gil-Longo, J., Bardán, B., et al. *J. Pharm. Pharmacol.* **43**(5), 356-359 (1991).
5. Siddiqui, A.A., Mishra, R., Shaharyar, M., et al. *Bioorg. Med. Chem. Lett.* **21**(3), 1023-1026 (2011).

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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