

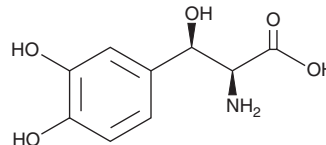
PRODUCT INFORMATION



Droxidopa

Item No. 23779

CAS Registry No.: 23651-95-8
Formal Name: (βR),3-dihydroxy-L-tyrosine
Synonyms: L-threo-3,4-Dihydroxyphenylserine, L-Dihydroxyphenylserine, L-DOPS, SM 5688
MF: C₉H₁₁NO₅
FW: 213.2
Purity: ≥95%
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

Droxidopa (L-DOPS) is supplied as a solid. A stock solution may be made by dissolving the L-DOPS in water. L-DOPS is slightly soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

L-DOPS is a synthetic precursor and prodrug of the neurotransmitter norepinephrine.¹ It is transformed into norepinephrine through the action of DOPA decarboxylase. L-DOPS increases norepinephrine levels in the rat heart following intraperitoneal administration and in the brain following intracerebroventricular administration at doses of 125 and 100 μg/animal, respectively. It increases arterial pressure and mesenteric arterial resistance in rats with ligated portal vein or biliary ducts when used at doses of 25-50 mg/kg.² L-DOPS crosses the blood brain barrier, however, its effects can be blocked by the peripherally-restricted DOPA decarboxylase inhibitor carbidopa (Item No. 23783), indicating that the mechanism is peripheral.^{2,3} Formulations containing droxidopa are used in the treatment of neurogenic orthostatic hypotension.

References

1. Bartholini, G., Constantinidis, J., Puig, M., *et al.* The stereoisomers of 3,4-dihydroxyphenylserine as precursors of norepinephrine. *J. Pharmacol. Exp. Ther.* **193**(2), 523-532 (1975).
2. Coll, M., Rodriguez, S., Raurell, I., *et al.* Droxidopa, an oral norepinephrine precursor, improves hemodynamic and renal alterations of portal hypertensive rats. *Hepatology* **56**(5), 1849-1860 (2012).
3. Kaufmann, H., Norcliffe-Kaufmann, L., and Palma, J.-A. Droxidopa in neurogenic orthostatic hypotension. *Exp. Rev. Cardiovasc. Ther.* **13**(8), 875-891 (2015).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/04/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM