

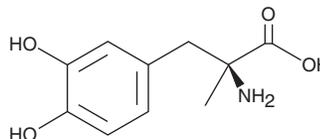
# PRODUCT INFORMATION



## L-(-)- $\alpha$ -Methyldopa

Item No. 21814

**CAS Registry No.:** 555-30-6  
**Formal Name:** 3-hydroxy- $\alpha$ -methyl-L-tyrosine  
**Synonyms:** Methyldopa, MK-351, NSC 169916  
**MF:** C<sub>10</sub>H<sub>13</sub>NO<sub>4</sub>  
**FW:** 211.2  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 224, 284 nm  
**Supplied as:** A crystalline solid  
**Storage:** Room temperature  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

L-(-)- $\alpha$ -Methyldopa is supplied as a crystalline solid. L-(-)- $\alpha$ -Methyldopa is sparingly soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

L-(-)- $\alpha$ -Methyldopa is a dopamine (DOPA) decarboxylase inhibitor ( $ED_{50}$  = 21.8 mg/kg) and has antihypertensive activity *in vitro* and *in vivo*.<sup>1-3</sup> L-(-)- $\alpha$ -Methyldopa enters the CNS and is metabolized to form  $\alpha$ -methylnorepinephrine which acts as an agonist at  $\alpha_2$ -adrenergic receptors.<sup>1,3</sup> Formulations containing L-(-)- $\alpha$ -methyldopa are used to lower blood pressure.<sup>2</sup> L-(-)- $\alpha$ -Methyldopa also improves trophoblast and endothelial cellular interactions *in vitro*.<sup>1</sup>

### References

- Xu, B., Bobek, G., Makris, A., *et al.* Antihypertensive methyldopa, labetalol, hydralazine, and clonidine reversed tumour necrosis factor- $\alpha$  inhibited endothelial nitric oxide synthase expression in endothelial-trophoblast cellular networks. *Clin. Exp. Pharmacol. Physiol.* **44(3)**, 421-427 (2016).
- Onesti, G., Brest, A.N., Novack, P., *et al.* Pharmacodynamic effects of alpha-methyl dopa in hypertensive subjects. *Am. Heart J.* **67(1)**, 32-38 (1964).
- LeDoux, J.E., Sakaguchi, A., and Reis, D.J. Alpha-methylDOPA dissociates hypertension, cardiovascular reactivity and emotional behavior in spontaneously hypertensive rats. *Brain Res.* **259(1)**, 69-76 (1983).

#### 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

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