Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

L- (-) -α-Methyldopa (hydrochloride)

Catalog No: tcsc2173

Available Sizes

Size: 1g

Specifications

CAS No:
884-39-9

Formula:
$C_{10}H_{14}ClNO_4$

Pathway:
GPCR/G Protein

Target:
Adrenergic Receptor

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
MK-351 hydrochloride;Methyldopa hydrochloride

Observed Molecular Weight:
247.68

Product Description

L-(-)-α-Methyldopa hydrochloride is an alpha-adrenergic agonist (selective for α2-adrenergic receptors) psychoactive drug used as a sympatholytic or antihypertensive.

Target: alpha-adrenergic agonist

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Methyldopa is an alpha-adrenergic agonist (selective for α2-adrenergic receptors) psychoactive drug used as a sympatholytic or antihypertensive. Its use is now mostly deprecated following the introduction of alternative safer classes of agents. However, it continues to have a role in otherwise difficult to treat hypertension and gestational hypertension (also known as pregnancy-induced hypertension (PIH)).

Methyldopa has a dual mechanism of action. It is a competitive inhibitor of the enzyme DOPA decarboxylase, also known as aromatic L-amino acid decarboxylase, which converts L-DOPA into dopamine. Dopamine is a precursor for norepinephrine (noradrenaline) and subsequently epinephrine (adrenaline). This inhibition results in reduced dopaminergic and adrenergic neurotransmission in the peripheral nervous system. This effect may lower blood pressure and cause central nervous system effects such as depression, anxiety, apathy, anhedonia, and parkinsonism. It is converted to α-methylnorepinephrine by dopamine beta-hydroxylase (DBH). α-methylnorepinephrine is an agonist of presynaptic central nervous system α2-adrenergic receptors. Activation of these receptors in the brainstem appears to inhibit sympathetic nervous system output and lower blood pressure. This is also the mechanism of action of clonidine.