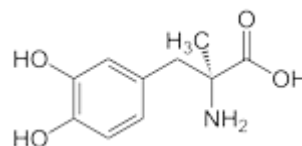




Product Name : METHYLDOPA



Product Description : Methyldopa (L-3-Methyl-3,4-dihydroxyphenylalanine) is an alpha-adrenergic agonist (selective for α_2 -adrenergic receptors) psychoactive drug used as a sympatholytic or antihypertensive. 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 α_2 -adrenergic receptors. Activation of these receptors in the brainstem appears to inhibit sympathetic nervous system output and lower blood pressure.

Chemical Formula : (S)-2-amino-3-(3,4-dihydroxyphenyl)-2-methyl-propanoic acid

CAS No : 555-30-6

Molecular Formula : C₁₀H₁₃NO₄

Molecular Weight : 211.215