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# DATASHEET

## L-DOPA methyl ester hydrochloride

### Product overview

<b>Name</b>	L-DOPA methyl ester hydrochloride
<b>Cat No</b>	HB5354
<b>Alternative names</b>	DME, LDME, Levodopa methyl ester, ST 41769, 3,4-Dihydroxyphenylalanine methyl ester
<b>Biological action</b>	Agonist
<b>Purity</b>	>98%
<b>Description</b>	Water soluble L-DOPA derivative

### Images



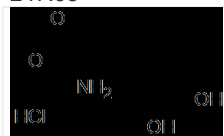
### Biological Data

<b>Biological description</b>	Highly water-soluble derivative of L-DOPA, with better oral bioavailability, solubility and pharmacokinetic profile than <b>L-DOPA</b> . Exhibits anti-parkinsonian action.
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### Solubility & Handling

<b>Storage instructions</b>	-20°C
<b>Solubility overview</b>	Soluble in water (100 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

### Chemical Data

<b>Chemical name</b>	Methyl (2S)-2-amino-3-(3,4-dihydroxyphenyl)propanoate hydrochloride
<b>Molecular Weight</b>	247.68
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>10</sub> H <sub>13</sub> NO <sub>4</sub> .HCl
<b>CAS Number</b>	1421-65-4
<b>PubChem identifier</b>	10131132

<b>SMILES</b>	<chem>COC(=O)[C@H](CC1=CC(=C(C=C1)O)O)N.Cl</chem>
<b>InChi</b>	InChI=1S/C10H13NO4.ClH/c1-15-10(14)7(11)4-6-2-3-8(12)9(13)5-6;/h2-3,5,7,12-13H,4,11H2,1H3;1H/t7-;/m0./s1
<b>InChiKey</b>	WFGNJLMSYIJWII-FJXQXJEOSA-N
<b>MDL number</b>	MFCD00038958
<b>Appearance</b>	Off-white solid

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## References

### Striatal inhibition of PKA prevents levodopa-induced behavioural and molecular changes in the hemiparkinsonian rat

Lebel et al (2010) Neurobiol Dis.

**PubMedID** [20060905](#)

### Development of a Hydrophobicity-Controlled Delivery System Containing Levodopa Methyl Ester Hydrochloride Loaded into a Mesoporous Silica

Kiss et al (2021) Pharmaceutics 13(7)

**PubMedID** [34371730](#)

### The effects on central dopamine function of chronic L-dopa (methyl ester hydrochloride) treatment of mice

Tabar et al (1989) Pharmacol Biochem Behav. 139-46.

**PubMedID** [2789405](#)

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