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## DATASHEET

Emetine dihydrochloride

### Product overview

<b>Name</b>	Emetine dihydrochloride
<b>Cat No</b>	HB7389
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>98%
<b>Description</b>	Protein synthesis inhibitor

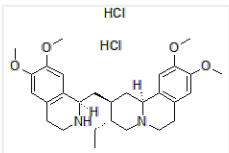
### Biological Data

<b>Biological description</b>	Protein synthesis inhibitor with anti-protozoal effects. It binds to the ribosomal E site of Plasmodium falciparum to inhibit malaria.  Also shows antiviral effects against various RNA and DNA viruses including Zika and HIV-1). Also identified to inhibit hCoV-OC43, hCoV-NL43, SARS-CoV, MERS-CoV, and MHV-A59 in vitro with EC <sub>50</sub> values reported at low micro-molar range and can effectively inhibit SARS-CoV-2 virus replication.
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### Solubility & Handling

<b>Storage instructions</b>	Store at +4 °C
<b>Solubility overview</b>	Soluble in water
<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>	(2S,3R,11bS)-2-(((1R)-6,7-Dimethoxy-1,2,3,4-tetrahydroisoquinolin-1-yl)methyl)-3-ethyl-9,10-dimethoxy-2,3,4,6,7,11b-hexahydro-1H-pyrido [2,1-a]isoquinoline dihydrochloride hydrate
<b>Molecular Weight</b>	480.64
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>29</sub> H <sub>40</sub> N <sub>2</sub> O <sub>4</sub> ·2HCl
<b>CAS Number</b>	7083-71-8
<b>PubChem identifier</b>	201899
<b>SMILES</b>	CC[C@H]1CN2CCC3=CC(=C(C=C3[C@@H]2C[C@@H]1C[C@@H]4C5=CC(=C(C=C5CCN4)OC)OC)OC)O.Cl.Cl
<b>InChi</b>	InChI=1S/C29H40N2O4.2ClH.H2O/c1-6-18-17-31-10-8-20-14-27(33-3)29(35-5)16-23(20)25(31)12-21(18)11-24-22-15-28(34-4)26(32-2)13-19(22)7-9-30-24;;;/h13-16,18,21,24-25,30H,6-12,17H2,1-5H3;2*1H;1H2/t18-,21-,24+,25-;;/m0.../s1
<b>InChiKey</b>	IZTPMTAWOCEKKM-VXMYZLRESA-N
<b>MDL number</b>	MFCD00149309
<b>Appearance</b>	White powder

## References

### **Remdesivir, lopinavir, emetine, and homoharringtonine inhibit SARS-CoV-2 replication in vitro**

Choy et al (2020) Antiviral Res. 178

**PubMedID** [32251767](#)

### **Structural basis for inhibition of protein synthesis by emetine and cycloheximide based on an analogy between ipecac alkaloids and glutarimide antibiotics**

Grollman (1966) Proc Natl Acad Sci USA 56(6)

**PubMedID** [16591432](#)

### **The alkaloid emetine as a promising agent for the induction and enhancement of drug-induced apoptosis in leukemia cells**

Moeller et al (2007) Oncol Rep. 18(3)

**PubMedID** [17671728](#)

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