NEUROMICS

Emetine Data Sheet

Catalog Number:	MC11116	**Product Type:**	Small Molecule
Bio-Activity:	Protein synthesis inhibitor; Antiparasic, antiviral	**CAS #:**	483-18-1
Research Categories:	Cell death, vesicles, parasites, infectious disease, cancer	**Chemical Name:**	(2S,3R,11bS)-3-ethyl-1,3,4,6,7,11b-hexahydro-9,10-dimethoxy-2-[[(1R)-1,2,3,4-tetrahydro-6,7-dimethoxy-1-isoquinolinyl]methyl]-2H-benzo[a]quinolizine, dihydrochloride, hydrate
Solubility:	Soluble in Water (up to 100 mg/ml)	**Molecular Formula:**	C29H40N2O4 • 2HCl [XH2O]
Purity:	> 98%	**Molecular Weight:**	553.6
Format:	Powder	**Ship Temp:**	Ambient
Storage:	-20°C		

Application Notes

Description/Data:
One of the active ingredients of ipecac root extract, used as an emetic [1]. Induces apoptosis in breast cancer cells via inhibition of Wnt/β-catenin signaling [2]. Inhibits Zika and Ebola virus in vitro and in vivo, targeting viral entry and replication by inhibiting viral RNA polymerase and host lysosomal function [3]. Also inhibits SARS-CoV-2 replication in cells (EC50 for viral load reduction is 0.46 □M) [4]. A useful agent for inhibiting protein synthesis in eukaryotic cells by virtue of its inhibition of the ribosome 40S subunit [5].

References:

1) Lee et al. (2008), Ipecacuanha: the South American vomiting root; J R Coll. Physicians Edinb., 38 355

2) Sun et al. (2019), Emetine Exhibits Anticancer Activity in Breast Cancer Cells as an Antagonist of Wnt/ß-catenin Signaling; Oncol. Rep., 42 1735

3) Yang et al. (2018), Changing cancer survival in China during 2003-2015: a pooled analysis of 17 population-based cancer registries; Cell Discov., 4 31

4) Choy et al. (2020), Remdesivir, Lopinavir, and Homoharringtonine Inhibit SARS-CoV-2 Replication in Vitro; Antivir. Res., 178 104786

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5) Cuyas et al. (2015), Anti-protozoal and Anti-Bacterial Antibiotics That Inhibit Protein Synthesis Kill Cancer Subtypes Enriched for Stem Cell-Like Properties; Cell Cycle, 14 3527

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