Data Sheet (Cat.No.T35773)

TargetMol

Gliotoxin-13C13

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Gliotoxin-13C13 is intended for use as an internal standard for the quantification of gliotoxin by GC- or LC-MS. Gliotoxin (TN1694) is an immunosuppressive mycotoxin produced by pathogenic strains ofAspergillusand other fungi with diverse biological activities.1,2,3,4,5,6,7,8It inhibits 20S proteasomal chymotrypsin activity (IC50= 10 μM), blocking the degradation of IκBα and preventing the activation of NF-κB.2,3Gliotoxin induces apoptosis in monocytes and dendritic cells and reduces phagocytosis by neutrophils.4,5It suppresses viral infection by Nipah and Hendra virus in HEK293T cells (IC50s = 149 and 579 nM, respectively).6Under reducing conditions, gliotoxin inhibits leukotriene A4hydrolase epoxide hydrolase activity, but not aminopeptidase activity, and leukotriene B4synthesis in neutrophils and monocytes.7
Targets(IC50)	Others
In vivo	In vivo, gliotoxin (5 mg/kg) reduces LTB4plasma levels and blocks peritoneal neutrophil infiltration in a mouse model of peritonitis induced by zymosan A . It also inhibits geranylgeranyltransferase I and farnesyltransferase (IC50s = 17 and 80 μM, respectively).8

Solubility Information

Solubility	Acetonitrile: 3 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

Kwon-Chung, K.J., and Sugui, J.A.What do we know about the role of gliotoxin in the pathobiology of Aspergillus fumigatus?Med. Mycol.47(Suppl 1)S97-S103(2009)
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