

JTE-607, mRNA processing inhibitor

Catalog	Unit
TBI4842-5MG	5 mg
TBI4842-25MG	25 mg

Product Details

Formal Name: Ethyl (2S)-2-[[[3,5-Dichloro-2-hydroxy-4-[2-(4-methylpiperazin-1-yl)ethoxy]benzoyl]amino]-3-phenylpropanoate dihydrochloride

Molecular Formula: C₂₅H₃₁Cl₂N₃O₅ • 2HCl

Formula Weight: 597.40

CAS Number: 188791-09-5

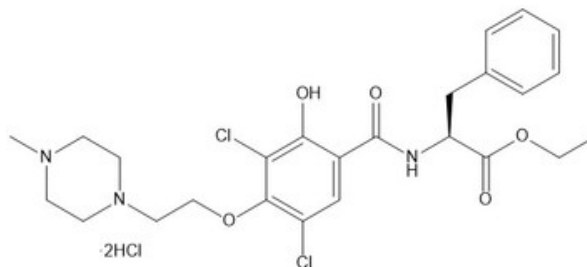
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 25 mg/ml)

Storage: -20°C

Stability: ≥ 1 year.



Applications

mRNA processing inhibitor

Functions

Inhibits inflammatory cytokine production in human peripheral blood mononuclear cells (PBMC's) without causing immunosuppression: IC₅₀'s = 11 nM (TNF-α), 5.9 nM (IL-1β), 8.8 nM (IL-6), 7.3 nM (IL-8), and 9.1 nM (IL-10). It displayed efficacy in a mouse model of septic shock. JTE-607 also showed inhibitory activity against acute myelogenous leukemia cell lines. Recently, the mechanism of action of JTE-607 (a pro-drug, with the active species being the free acid) has been found to be inhibition of pre-messenger RNA endonuclease Cleavage and Polyadenylation Specificity Factor 3 (CPSF3). This prevents release of newly synthesized mRNA's resulting in read-through transcription and the formation of DNA-RNA hybrid R-loop structures. Transcripts down-regulated by JTE-607 were related to DNA damage-based phenotype.

Application Procedures

First dissolved in DMSO (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20° for up to 1 month.

For research use only.