

4 μ 8C, IRE1 ribonuclease inhibitor

Catalog	Unit
TBI1579-5MG	5 mg
TBI1579-25MG	25 mg

Product Details

Formal Name: 7-Hydroxy-4-methyl-2-oxo-2H-1-benzopyran-8-carboxaldehyde

Molecular Formula: C₁₁H₈O₄

Formula Weight: 204.18

CAS Number: 14003-96-4

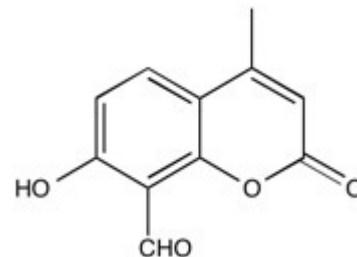
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 20 mg/ml)

Storage: -20°C

Stability: \geq 2 years.



Applications

IRE1 ribonuclease inhibitor

Functions

Selective inhibitor of IRE1 α ribonuclease (RNase) activity (IC₅₀ = 60 nM). Covalently binds to lysine 907 in the IRE1 endonuclease domain, blocking substrate access to the active site of IRE1 α and inactivating both XBP1 splicing and IRE1 α -mediated mRNA degradation but not IRE1 kinase activity. Inhibits IRE1 α in response to hypoxia or other ER stress-inducing agents but has no effect on proliferation or clonogenic survival of hypoxic cells. Blocks production of IL-4, IL-5 and IL-13 production in T cells. Prevents the splicing of the XBP1 mRNA in response to ER stress caused by mutant proinsulin production in pancreatic β -cells.

Application Procedures

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

For research use only.