

Catalog	Unit
TBI2750-5MG	5 mg
TBI2750-25MG	25 mg

Product Details

Formal Name: 4-Amino-7-β-D-ribofuranosyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonitrile

Alternate Names: 7-Deaza-7-cyanoadenosine; NSC 63701; NSC 99843; Neuro 000027;

Unamycin B; Vengicide

Molecular Formula: C₁₂H₁₃N₅O₄

Formula Weight: 291.26

CAS Number: 606-58-6

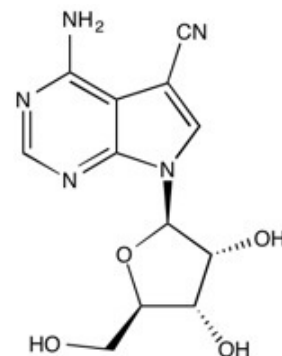
Purity: >98%

Formulation: powder

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

Storage: -20°C

Stability: ≥ 1 year.



Applications

RNA self cleavage inhibitor; antitumor activity

Functions

An adenosine analog which inhibits ribozyme self cleavage in mammalian cells, EC₅₀ = 0.4 μM (for expression of a luciferase reporter). A potent inhibitor of ER stress-induced XBP1 mRNA splicing. It suppresses thapsigargin-, tunicamycin- and 2-deoxyglucose-induced XBP1 mRNA splicing in HeLa cells without affecting ATF6 and PERK activation. Although unable to inhibit IRE1α phosphorylation, it prevented IRE1α-induced XBP1 mRNA cleavage in vitro. It inhibits not only ER stress-induced but also constitutive activation of XBP1 expression in multiple myeloma cell lines as well as in primary patient samples. Displays synergistic effects with bortezomib. Inhibits unfolded protein response and induces apoptosis in pancreatic cancer cells.

Application Procedures

First dissolved in DMSO (up to 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 3 months.

For research use only.