BPTES, Glutaminase GLS1 inhibitor

Catalog	Unit
TBI5414-5MG	5 mg
TBI5414-25MG	25 mg

Product Details

Formal Name: N,N'-[Thiobis(2,1-ethanediyl-1,3,4-thiadiazole-5,2-diyl)]bisbenzeneacetamide Molecular Formula: $C_{24}H_{24}N_6O_2S_3$ Formula Weight: 524.70 CAS Number: 314045-39-1 Purity: >98% Formulation: powder Solubility: Soluble in DMSO (10 mg/ml) Storage: -20°C Stability: \geq 2 years.

Applications

Glutaminase GLS1 inhibitor

Functions

A potent and selective allosteric inhibitor of kidney-type glutaminase (GLS1), $IC50 = 3.3 \mu M$. Selective for GLS1 over GLS2, γ -glutamyl transpeptidase and glutamate dehydrogenase. Shuts down an alternative energy-generating glutaminolysis pathway in P493 cells under both glucose deprivation or hypoxia. Reduces the growth of P493 cell xenografts by 50% over a 10 day treatment. BPTES inhibition of glutamine utilization in cancer cells increases PD-L1 expression. Clears senescent cells and improves various age-related disorders in a geriatric mouse model.

Application Procedures

First dissolved in DMSO (10 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20° C for up to 2 months.

For research use only.