

APY29

Chemical Properties

CAS No. : 1216665-49-4

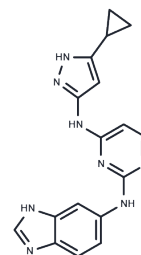
Formula: C₁₇H₁₆N₈

Molecular Weight: 332.36

Store at low temperature

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	APY29 is an allosteric modulator of IRE1 α ; inhibits IRE1 α autophosphorylation (IC ₅₀ = 280 nM) and activates IRE1 α RNase activity.
Targets(IC ₅₀)	IRE1
In vitro	APY29 selectively influences IRE1 α by divergently modulating its RNase activity and oligomerization state through the same binding site, showing opposing effects on RNase activity. Additionally, APY29 has a dose-dependent, contrasting impact on ER stress-induced activation of the endogenous IRE1 α RNase [1].

Solubility Information

Solubility	DMSO: 12.5 mg/mL (37.61 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (15.04 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0088 mL	15.0439 mL	30.0879 mL
5 mM	0.6018 mL	3.0088 mL	6.0176 mL
10 mM	0.3009 mL	1.5044 mL	3.0088 mL
50 mM	0.0602 mL	0.3009 mL	0.6018 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Wang, L., Perera, B., Hari, S., Bhatarai, B., Backes, B., & Seeliger, M. et al. (2012). Divergent allosteric control of the IRE1 α endoribonuclease using kinase inhibitors. *Nature Chemical Biology*, 8(12), 982-989. doi: 10.1038/nchembio.1094

Yuan J, Yao C, Tang J, et al. Enhanced GRP78 protein expression via the IRE1 α /ASK1/p38 MAPK pathway during As2O3-induced endoplasmic reticulum stress in BEAS-2B cells. *Toxicology*. 2021, 462: 152962.

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