

JH295 hydrate

Chemical Properties

CAS No. :

Formula: C₁₈H₁₈N₄O₃

Molecular Weight: 338.36

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	JH295 hydrate is a potent, irreversible and selective NIMA-related kinase 2 (Nek2) inhibitor that inhibits cellular Nek2 by Cys22 alkylation (IC ₅₀ = 770 nM). JH295 hydrate is not active against the mitotic kinases, Cdk1, Aurora B or Plk1, and does not interfere with bipolar spindle assembly or the spindle assembly checkpoint [1].
In vitro	Treating RPMI7951 cells with JH295 (Compound 16; concentration range 0.08-20 µM; for 45 minutes) significantly inhibits the activity of wild-type Nek2, achieving an IC ₅₀ value of approximately 1.3 µM. Conversely, this treatment exhibits minimal impact on the C22V mutant version of Nek2. Western Blot analysis, employing the same cell line and varying concentrations of JH295 (0.08 µM to 20 µM over a 45-minute incubation period), corroborates these findings, underscoring the compound's potent inhibition of WT Nek2 while demonstrating negligible effects on the C22V mutant.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9554 mL	14.7772 mL	29.5543 mL
5 mM	0.5911 mL	2.9554 mL	5.9109 mL
10 mM	0.2955 mL	1.4777 mL	2.9554 mL
50 mM	0.0591 mL	0.2955 mL	0.5911 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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