

# Product data sheet



MedKoo Cat#: 530601 Name: NIH-12848 CAS: 959551-10-1 Chemical Formula: C <sub>20</sub> H <sub>14</sub> F <sub>3</sub> N <sub>3</sub> S Exact Mass: 385.0861 Molecular Weight: 385.4082	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

## 1. Product description:

NIH-12848 is a putative phosphatidylinositol 5-phosphate 4-kinase  $\gamma$  (PI5P4K $\gamma$ ) inhibitor. NIH-12848 inhibited PI5P4K $\gamma$  with an IC<sub>50</sub> of approximately 1  $\mu$ M but did not inhibit the  $\alpha$  and  $\beta$  PI5P4K isoforms at concentrations up to 100  $\mu$ M. NIH-12848 is a potentially powerful tool for exploring the cell physiology of PI5P4Ks.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	67.33	174.71
Ethanol	77.0	200.0

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.59 mL	12.97 mL	25.95 mL
5 mM	0.52 mL	2.59 mL	5.19 mL
10 mM	0.26 mL	1.30 mL	2.59 mL
50 mM	0.05 mL	0.26 mL	0.52 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

Clarke JH, Giudici ML, Burke JE, Williams RL, Maloney DJ, Marugan J, Irvine RF. The function of phosphatidylinositol 5-phosphate 4-kinase  $\gamma$  (PI5P4K $\gamma$ ) explored using a specific inhibitor that targets the PI5P-binding site. *Biochem J.* 2015 Mar 1;466(2):359-67. doi: 10.1042/BJ20141333. PMID: 25495341; PMCID: PMC4687057.

In vivo study

TBD

## 7. Bioactivity

Biological target:

NIH-12848 is a putative phosphatidylinositol 5-phosphate 4-kinase  $\gamma$  (PI5P4K $\gamma$ ) inhibitor with an IC<sub>50</sub> of 1  $\mu$ M.

In vitro activity

NIH-12848 (10  $\mu$ M) was applied to cultured mouse principal kidney cortical collecting duct (mpkCCD) cells which, we show, express PI5P4K $\gamma$  that increases when the cells grow to confluence and polarize. NIH-12848 inhibited the translocation of Na<sup>+</sup>/K<sup>+</sup>-ATPase to

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the plasma membrane that occurs when mpkCCD cells grow to confluence and also prevented reversibly their forming of 'domes' on the culture dish.

Reference: Biochem J. 2015 Mar 1;466(2):359-67. <https://pubmed.ncbi.nlm.nih.gov/25495341/>

In vivo activity

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TBD

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*