

Product data sheet



MedKoo Cat#: 573174 Name: LY3295668 CAS: 1919888-06-4 Chemical Formula: C ₂₄ H ₂₆ ClF ₂ N ₅ O ₂ Exact Mass: 489.1743 Molecular Weight: 489.9518		
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:

LY3295668, also known as AK-01, is potent Aurora-A kinase inhibitor.

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	99.0	202.06
Ethanol	15.0	30.62

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.04 mL	10.21 mL	20.41 mL
5 mM	0.41 mL	2.04 mL	4.08 mL
10 mM	0.20 mL	1.02 mL	2.04 mL
50 mM	0.04 mL	0.20 mL	0.41 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

- Das BK, Kannan A, Nguyen Q, Gogoi J, Zhao H, Gao L. Selective Inhibition of Aurora Kinase A by AK-01/LY3295668 Attenuates MCC Tumor Growth by Inducing MCC Cell Cycle Arrest and Apoptosis. *Cancers (Basel)*. 2021 Jul 23;13(15):3708. doi: 10.3390/cancers13153708. PMID: 34359608; PMCID: PMC8345130.
- Du J, Yan L, Torres R, Gong X, Bian H, Marugán C, Boehnke K, Baquero C, Hui YH, Chapman SC, Yang Y, Zeng Y, Bogner SM, Foreman RT, Capen A, Donoho GP, Van Horn RD, Barnard DS, Dempsey JA, Beckmann RP, Marshall MS, Chio LC, Qian Y, Webster YW, Aggarwal A, Chu S, Bhattachar S, Stancato LF, Dowless MS, Iversen PW, Manro JR, Walgren JL, Halstead BW, Dieter MZ, Martinez R, Bhagwat SV, Kreklau EL, Lallena MJ, Ye XS, Patel BKR, Reinhard C, Plowman GD, Barda DA, Henry JR, Buchanan SG, Campbell RM. Aurora A-Selective Inhibitor LY3295668 Leads to Dominant Mitotic Arrest, Apoptosis in Cancer Cells, and Shows Potent Preclinical Antitumor Efficacy. *Mol Cancer Ther*. 2019 Dec;18(12):2207-2219. doi: 10.1158/1535-7163.MCT-18-0529. Epub 2019 Sep 17. PMID: 31530649.

In vivo study

- Gong X, Du J, Parsons SH, Merzoug FF, Webster Y, Iversen PW, Chio LC, Van Horn RD, Lin X, Blosser W, Han B, Jin S, Yao S, Bian H, Ficklin C, Fan L, Kapoor A, Antonysamy S, Mc Nulty AM, Froning K, Manglicmot D, Pustilnik A, Weichert K, Wasserman SR, Dowless M, Marugán C, Baquero C, Lallena MJ, Eastman SW, Hui YH, Dieter MZ, Doman T, Chu S, Qian HR, Ye XS, Barda DA, Plowman GD, Reinhard C, Campbell RM, Henry JR, Buchanan SG. Aurora A Kinase Inhibition Is Synthetic Lethal with Loss of

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the RB1 Tumor Suppressor Gene. Cancer Discov. 2019 Feb;9(2):248-263. doi: 10.1158/2159-8290.CD-18-0469. Epub 2018 Oct 29. PMID: 30373917.

7. Bioactivity

Biological target:

LY3295668 (AK-01) is a potent, orally active and highly specific Aurora-A kinase inhibitor, with K_i values of 0.8 nM and 1038 nM for AurA and AurB.

In vitro activity

This study found that AK-01 potently suppresses MCC survival through apoptosis and cell cycle arrest, particularly in MCPyV-negative MCC cells without RB expression.

Reference: Cancers (Basel). 2021 Jul 23;13(15):3708. <https://pubmed.ncbi.nlm.nih.gov/34359608/>

In vivo activity

LY3295668, an AURKA inhibitor with over 1,000-fold selectivity versus AURKB, is distinguished by minimal toxicity to bone marrow cells at concentrations active against RB1 mut cancer cells and leads to durable regression of RB1 mut tumor xenografts at exposures that are well tolerated in rodents.

Reference: Cancer Discov. 2019 Feb;9(2):248-263. <https://pubmed.ncbi.nlm.nih.gov/30373917/>

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.