

Product data sheet



MedKoo Cat#: 525451 Name: KYA1797K CAS: 1956356-56-1 Chemical Formula: C ₁₇ H ₁₁ KN ₂ O ₆ S ₂ Exact Mass: 441.9696 Molecular Weight: 442.5013	
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:

KYA1797K is a novel highly potent and selective inhibitor of both Wnt/β-catenin and Ras pathways.

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	9.43	21.31
Water	1.0	2.26

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.26 mL	11.30 mL	22.60 mL
5 mM	0.45 mL	2.26 mL	4.52 mL
10 mM	0.23 mL	1.13 mL	2.26 mL
50 mM	0.05 mL	0.23 mL	0.45 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

1. Zhu M, Ling X, Zhou S, Meng P, Chen Q, Chen S, Shen K, Xie C, Kong Y, Wang M, Zhou L. KYA1797K, a Novel Small Molecule Destabilizing β-Catenin, Is Superior to ICG-001 in Protecting against Kidney Aging. *Kidney Dis (Basel)*. 2022 Sep 27;8(5):408-423. doi: 10.1159/000526139. PMID: 36466073; PMCID: PMC9710484.

2. Ruan Z, Liang M, Lai M, Shang L, Deng X, Su X. KYA1797K down-regulates PD-L1 in colon cancer stem cells to block immune evasion by suppressing the β-catenin/STT3 signaling pathway. *Int Immunopharmacol*. 2020 Jan;78:106003. doi: 10.1016/j.intimp.2019.106003. Epub 2019 Dec 5. PMID: 31812723.

In vivo study

1. Park J, Cho YH, Shin WJ, Lee SK, Lee J, Kim T, Cha PH, Yang JS, Cho J, Min DS, Han G, Lee HY, Choi KY. A Ras destabilizer KYA1797K overcomes the resistance of EGFR tyrosine kinase inhibitor in KRAS-mutated non-small cell lung cancer. *Sci Rep*. 2019 Jan 24;9(1):648. doi: 10.1038/s41598-018-37059-8. PMID: 30679620; PMCID: PMC6345925.

2. Cha PH, Cho YH, Lee SK, Lee J, Jeong WJ, Moon BS, Yun JH, Yang JS, Choi S, Yoon J, Kim HY, Kim MY, Kaduwal S, Lee W, Min do S, Kim H, Han G, Choi KY. Small-molecule binding of the axin RGS domain promotes β-catenin and Ras degradation. *Nat Chem Biol*. 2016 Aug;12(8):593-600. doi: 10.1038/nchembio.2103. Epub 2016 Jun 13. PMID: 27294323.

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7. Bioactivity

Biological target:

KYA1797K is a potent and selective Wnt/ β -catenin inhibitor with an IC_{50} of 0.75 μ M.

In vitro activity

In cultured proximal tubular cells, KYA1797K shows a better effect on inhibiting cellular senescence and could better suppress mitochondrial dysfunction and ameliorate the fibrotic changes, at the same dose as that in ICG-001.

Reference: Kidney Dis (Basel). 2022 Sep 27;8(5):408-423. <https://pubmed.ncbi.nlm.nih.gov/36466073/>

In vivo activity

Furthermore, KYA1797K effectively inhibited Kras-driven tumorigenesis in the KrasLA2 mouse model by suppressing the Ras-ERK pathway.

Reference: Sci Rep. 2019 Jan 24;9(1):648. <https://pubmed.ncbi.nlm.nih.gov/30679620/>

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.