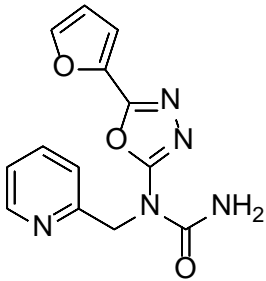


Product data sheet



MedKoo Cat#: 562438 Name: NK-252 CAS: 1414963-82-8 Chemical Formula: C ₁₃ H ₁₁ N ₅ O ₃ Exact Mass: 285.0862 Molecular Weight: 285.263	
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:

NK-252 is a Nrf2 activator. It acts by interacting with the Nrf2-binding site of Keap1 and downregulates the expression of fibrogenic genes.

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
DMF	20.0	70.11
DMF:PBS (pH 7.2) (1:1)	0.5	1.75
DMSO	23.84	83.58

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.51 mL	17.53 mL	35.06 mL
5 mM	0.70 mL	3.51 mL	3.51 mL
10 mM	0.35 mL	1.75 mL	3.51 mL
50 mM	0.07 mL	0.35 mL	0.70 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

- Liu B, Wang H. Oxaliplatin induces ferroptosis and oxidative stress in HT29 colorectal cancer cells by inhibiting the Nrf2 signaling pathway. *Exp Ther Med.* 2022 Jun;23(6):394. doi: 10.3892/etm.2022.11321. Epub 2022 Apr 13. PMID: 35495610; PMCID: PMC9047032.
- Kiue A, Sano T, Naito A, Inada H, Suzuki K, Okumura M, Kikuchi J, Sato S, Takano H, Kohno K, et al. Reversal by two dihydropyridine compounds of resistance to multiple anticancer agents in mouse P388 leukemia in vivo and in vitro. *Jpn J Cancer Res.* 1990 Oct;81(10):1057-64. doi: 10.1111/j.1349-7006.1990.tb03346.x. PMID: 1977728; PMCID: PMC5917977.

In vivo study

- Shi Y, Sun Y, Sun X, Zhao H, Yao M, Hou L, Jiang L. Up-regulation of HO-1 by Nrf2 activation protects against palmitic acid-induced ROS increase in human neuroblastoma BE(2)-M17 cells. *Nutr Res.* 2018 Apr;52:80-86. doi: 10.1016/j.nutres.2018.02.003. Epub 2018 Feb 12. PMID: 29526395.
- Shimozono R, Asaoka Y, Yoshizawa Y, Aoki T, Noda H, Yamada M, Kaino M, Mochizuki H. Nrf2 activators attenuate the progression of nonalcoholic steatohepatitis-related fibrosis in a dietary rat model. *Mol Pharmacol.* 2013 Jul;84(1):62-70. doi: 10.1124/mol.112.084269. Epub 2013 Apr 16. PMID: 23592516.

Product data sheet



7. Bioactivity

Biological target:

NK-252 is a Nrf2 activator.

In vitro activity

The aim of the present study was to investigate whether oxaliplatin could exert anticancer effects on CRC by promoting ferroptosis and oxidative stress. Furthermore, after treating cells with the Nrf2 activator, NK-252, Fe²⁺ was detected in cells using a commercial kit.

Reference: Exp Ther Med. 2022 Jun;23(6):394. doi: 10.3892/etm.2022.11321. <https://pubmed.ncbi.nlm.nih.gov/35495610/>

In vivo activity

For in vivo animal model studies, we used rats on a choline-deficient L-amino acid-defined (CDAA) diet, which demonstrate pathologic findings similar to those seen in human NASH. The administration of OPZ or NK-252 significantly attenuated the progression of histologic abnormalities in rats on a CDAA diet, especially hepatic fibrosis.

Reference: Mol Pharmacol. 2013 Jul;84(1):62-70. <https://pubmed.ncbi.nlm.nih.gov/23592516/>

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.