

# Product data sheet



MedKoo Cat#: 327017 Name: Navoximod free base CAS: 1402837-78-8 (free base) Chemical Formula: C <sub>18</sub> H <sub>21</sub> FN <sub>2</sub> O <sub>2</sub> Exact Mass: 316.1587 Molecular Weight: 316.3764		
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:

Navoximod, also known as IDO-IN-7 and NLG-1488, is an indoleamine 2,3-dioxygenase (IDO) inhibitor. It is also used as an immunomodulator and an antineoplastic.

## 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	81.5	257.60
Ethanol	63.0	199.13

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.16 mL	15.80 mL	31.61 mL
5 mM	0.63 mL	3.16 mL	6.32 mL
10 mM	0.32 mL	1.58 mL	3.16 mL
50 mM	0.06 mL	0.32 mL	0.63 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. Chen Y, Xiong T, Zhao X, Du J, Sun W, Fan J, Peng X. Tumor Cell-Responsive Photodynamic Immunoagent for Immunogenicity-Enhanced Orthotopic and Remote Tumor Therapy. *Adv Healthc Mater.* 2023 Feb;12(5):e2202085. doi: 10.1002/adhm.202202085. Epub 2022 Nov 27. PMID: 36377488.

2. Kesarwani P, Prabhu A, Kant S, Kumar P, Graham SF, Buelow KL, Wilson GD, Miller CR, Chinnaiyan P. Tryptophan Metabolism Contributes to Radiation-Induced Immune Checkpoint Reactivation in Glioblastoma. *Clin Cancer Res.* 2018 Aug 1;24(15):3632-3643. doi: 10.1158/1078-0432.CCR-18-0041. Epub 2018 Apr 24. PMID: 29691296; PMCID: PMC6591719.

### In vivo study

1. Xie T, Lv T, Zhang T, Feng D, Zhu F, Xu Y, Zhang L, Gu L, Guo Z, Ding C, Gong J. Interleukin-6 promotes skeletal muscle catabolism by activating tryptophan-indoleamine 2,3-dioxygenase 1-kynurenine pathway during intra-abdominal sepsis. *J Cachexia Sarcopenia Muscle.* 2023 Mar 7. doi: 10.1002/jcsm.13193. Epub ahead of print. PMID: 36880228.

2. Meng X, Du G, Ye L, Sun S, Liu Q, Wang H, Wang W, Wu Z, Tian J. Combinatorial antitumor effects of indoleamine 2,3-dioxygenase inhibitor NLG919 and paclitaxel in a murine B16-F10 melanoma model. *Int J Immunopathol Pharmacol.* 2017 Sep;30(3):215-226. doi: 10.1177/0394632017714696. Epub 2017 Jun 12. PMID: 28604143; PMCID: PMC5815254.

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## 7. Bioactivity

### Biological target:

Navoximod (GDC-0919; NLG-919) is a potent IDO (indoleamine-(2,3)-dioxygenase) pathway inhibitor with  $K_i/EC_{50}$  of 7 nM/75 nM.

### In vitro activity

As an initial investigation, this study evaluated levels of kynurenine following graded concentrations of GDC-0919 in this study's human glioblastoma cell lines in vitro. GDC-0919 demonstrated potent inhibition of kynurenine production, with median effective dose ( $ED_{50}$ ) concentrations ranging from 7 nM - 1.77  $\mu$ M and near complete inhibition at 5  $\mu$ M (Fig. 3A).

Reference: Clin Cancer Res. 2018 Aug 1;24(15):3632-3643. <https://pubmed.ncbi.nlm.nih.gov/29691296/>

### In vivo activity

In B16-F10 tumor-bearing mice, NLG919 was uniformly distributed throughout tumors and decreased kynurenine levels and kynurenine/tryptophan ratios in tumors and plasma for 6-12 h. NLG919 suppressed tumor growth in a dose-dependent manner and exhibited maximum efficacy at 100 mg/kg.

Reference: Int J Immunopathol Pharmacol. 2017 Sep;30(3):215-226. <https://pubmed.ncbi.nlm.nih.gov/28604143/>

*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.*