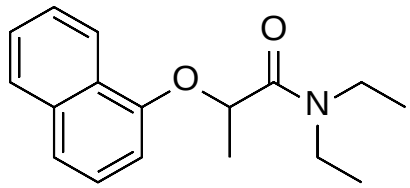
Product data sheet

MedKoo Cat#: 461084 Name: Napropamide CAS: 15299-99-7 Chemical Formula: $C_{17}H_{21}NO_2$ Exact Mass: 271.1572 Molecular Weight: 271.36	
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:
Napropamide belongs to the amide herbicide family and widely used to control weeds in farmland.

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	42.0	154.78

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.69 mL	18.43 mL	36.85 mL
5 mM	0.74 mL	3.69 mL	7.37 mL
10 mM	0.37 mL	1.84 mL	3.69 mL
50 mM	0.07 mL	0.37 mL	0.74 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. Xie J, Tang W, Zhao L, Liu S, Liu K, Liu W. Enantioselectivity and allelopathy both have effects on the inhibition of napropamide on Echinochloa crus-galli. Sci Total Environ. 2019 Sep 10;682:151-159. doi: 10.1016/j.scitotenv.2019.05.058. Epub 2019 May 7. PMID: 31112816.
2. Shen Y, Zhang J, Xie J, Liu J. In vitro assessment of corticosteroid effects of eight chiral herbicides. J Environ Sci Health B. 2020;55(2):91-102. doi: 10.1080/03601234.2019.1665408. Epub 2019 Sep 16. PMID: 31524045.

In vivo study

TBD

7. Bioactivity
Biological target:

Napropamide is a selective systemic amide herbicide used to control a number of annual grasses and broad-leaved weeds.

In vitro activity

To investigate this, this study has examined the inhibition effect of napropamide on Echinochloa crus-galli mono-cultured or co-cultured with maize at field conditions. These results on morphology, physiology, chlorophyll content and chlorophyll fluorescence suggest that R-napropamide has stronger inhibitory effect than Rac-napropamide and S-napropamide on Echinochloa crus-galli, while none of them affects maize.

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Reference: Sci Total Environ. 2019 Sep 10;682:151-159. https://pubmed.ncbi.nlm.nih.gov/31112816/

In vivo activity

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.