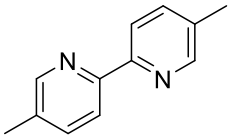
Product data sheet

MedKoo Cat#: 319650 Name: Abametapir CAS#: 1762-34-1 Chemical Formula: $C_{12}H_{12}N_2$ Exact Mass: 184.1 Molecular Weight: 184.242	
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:

Abametapir is the active ingredient of Xeglyze Lotion. Abametapir inhibits metalloproteinases; enzymes that are essential to physiological processes critical for egg development and the survival of nymph and adult lice. In vitro and ex vivo research has demonstrated that abametapir not only kills the lice, but also prevents hatching of their eggs. Xeglyze Lotion is emerging as a differentiated development candidate to treat head lice infestations.

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	23.5	127.55
DMF	15.0	81.41
Ethanol	15.0	81.41
Ethanol:PBS (pH 7.2) (1:4)	0.2	1.09

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	5.43 mL	27.14 mL	54.28 mL
5 mM	1.09 mL	5.43 mL	10.86 mL
10 mM	0.54 mL	2.71 mL	5.43 mL
50 mM	0.11 mL	0.54 mL	1.09 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. Bowles VM, Yoon KS, Barker SC, Tran C, Rhodes C, Clark MJ. Ovicidal Efficacy of Abametapir Against Eggs of Human Head and Body Lice (Anoplura: Pediculidae). J Med Entomol. 2017 Jan;54(1):167-172. doi: 10.1093/jme/tjw132. Epub 2016 Aug 21. Erratum in: J Med Entomol. 2017 Jan 1;54(1):248. PMID: 28082644; PMCID: PMC5853637.

In vivo study

N/A

7. Bioactivity

Biological target:

Abametapir is a metalloproteinase (MMP) inhibitor.

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In vitro activity

Treatment of head louse eggs with abametapir (0.74% in isopropanol) resulted in complete inhibition of hatching (100% ovicidal) in all stages of egg development from Day 0 to Day 8 (Table 1). At 0.55% abametapir, approximately 5.4% of the 6–8-d-old eggs hatched, in contrast to none of the 0–2- and 3–5-d-old eggs. As the concentration of abametapir declined, egg hatch increased in a concentration-dependent manner. A statistically significant concentration-dependent response was observed for all egg stages, with younger eggs (0–2 d) proving to be the most susceptible (LC_{50} = 0.108 (0.079–0.13) % abametapir concentration), followed by the 3–5-d-old eggs (LC_{50} = 0.121 (0.093-0.146) % abametapir concentration), whereas the oldest aged eggs (6–8 d) were most refractory to the treatment (LC_{50} = 0.160 (0.147–0.174) % abametapir concentration; Fig 1).

Reference: J Med Entomol. 2017 Jan; 54(1): 167–172. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5853637/

In vivo activity

N/A

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.