

# Product data sheet



MedKoo Cat#: 510222 Name: L006235 CAS: 294623-49-7 Chemical Formula: C <sub>24</sub> H <sub>30</sub> N <sub>6</sub> O <sub>2</sub> S Exact Mass: 466.2151 Molecular Weight: 466.604	
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:

L006235, also called L235, is a potent, reversible cathepsin K inhibitor (IC<sub>50</sub> = 0.25 nM) that displays > 4000-fold selectivity over cathepsins B, L and S.

## 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	15.0	32.15
DMSO	30.97	66.37
DMSO:PBS (pH 7.2) (1:1)	0.5	1.07

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.14 mL	10.72 mL	21.43 mL
5 mM	0.43 mL	2.14 mL	4.29 mL
10 mM	0.21 mL	1.07 mL	2.14 mL
50 mM	0.04 mL	0.21 mL	0.43 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

TBD

In vivo study

1. Nwosu LN, Gowler PRW, Burston JJ, Rizoska B, Tunblad K, Lindström E, Grabowska U, Li L, McWilliams DF, Walsh DA, Chapman V. Analgesic effects of the cathepsin K inhibitor L-006235 in the monosodium iodoacetate model of osteoarthritis pain. Pain Rep. 2018 Oct 5;3(6):e685. doi: 10.1097/PR9.0000000000000685. PMID: 30706033; PMCID: PMC6344135.

2. Pennypacker BL, Duong LT, Cusick TE, Masarachia PJ, Gentile MA, Gauthier JY, Black WC, Scott BB, Samadfam R, Smith SY, Kimmel DB. Cathepsin K inhibitors prevent bone loss in estrogen-deficient rabbits. J Bone Miner Res. 2011 Feb;26(2):252-62. doi: 10.1002/jbmr.223. PMID: 20734451.

## 7. Bioactivity

Biological target:

L-006235 (L-235) is a potent, selective, reversible and orally active inhibitor of cathepsin K, with an IC<sub>50</sub> of 5 nM in bone resorption assay.

# Product data sheet



## In vitro activity

---

TBD

## In vivo activity

---

Preventative L-006235 inhibited weight-bearing asymmetry from day 14, with this measure nearly abolished by the higher dose. In the same treatment setting, L-006235 prevented lowering of hind paw withdrawal thresholds from day 7. Exposure to L-006235 in plasma was higher for the 100 mg/kg dose, compared with 30 mg/kg. Therapeutic dosing with L-006235 from day 14 significantly inhibited weight-bearing asymmetry, compared with monosodium iodoacetate vehicle rats.

Reference: Pain Rep. 2018 Oct 5;3(6):e685. <https://pubmed.ncbi.nlm.nih.gov/30706033/>

*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.*