

Product data sheet



MedKoo Cat#: 529017 Name: Firibastat CAS#: 648927-86-0 (free) Chemical Formula: C ₈ H ₂₀ N ₂ O ₆ S ₄ Exact Mass: 368.0204 Molecular Weight: 368.49	
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:

Firibastat, also known as QGC-001 and RB-150, is a glutamyl aminopeptidase antagonist potentially for the treatment of hypertension. Firibastat is an orally active prodrug of the specific and selective aminopeptidase A (APA) inhibitor, EC33.

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
Water	33.33	90.45

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.71 mL	13.57 mL	27.14 mL
5 mM	0.54 mL	2.71 mL	5.43 mL
10 mM	0.27 mL	1.36 mL	2.71 mL
50 mM	0.05 mL	0.27 mL	0.54 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

To be determined

In vivo study

- Marc Y, Hmazzou R, De Mota N, Balavoine F, Llorens-Cortes C. Effects of firibastat in combination with enalapril and hydrochlorothiazide on blood pressure and vasopressin release in hypertensive DOCA-salt rats. *Biomed Pharmacother.* 2021 Aug;140:111682. doi: 10.1016/j.biopha.2021.111682. Epub 2021 May 19. PMID: 34020248.
- Alomar SA, Alghabban SA, Alharbi HA, Almoqati MF, Alduraibi Y, Abu-Zaid A. Firibastat, the first-in-class brain aminopeptidase a inhibitor, in the management of hypertension: A review of clinical trials. *Avicenna J Med.* 2021 Jan 5;11(1):1-7. doi: 10.4103/ajm.ajm_117_20. PMID: 33520782; PMCID: PMC7839263.

7. Bioactivity

Biological target:

Firibastat is a brain APA inhibitor (K_i=200 nM). When given orally, firibastat crosses the gastrointestinal and blood-brain barriers, enters the brain, and generates two active molecules of EC33 which inhibit brain APA activity, blocking brain angiotensin III formation, and decrease blood pressure for several hours in hypertensive rats.

In vitro activity

Product data sheet



To be determined

In vivo activity

In conscious hypertensive deoxycorticosterone acetate (DOCA)-salt rats, treatment with tritherapy with firibastat, enalapril and hydrochlorothiazide improves blood pressure control and arginine-vasopressin release in an experimental salt-dependent model of hypertension, indicating the development of new treatments for patients with currently difficult-to-treat or resistant hypertension.

Reference: Biomed Pharmacother. 2021 Aug;140:111682. <https://pubmed.ncbi.nlm.nih.gov/34020248/>

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.