

Catalog # 10-4366

Aprepitant

CAS# 170729-80-3

3-[[(2R,3S)-2-[(1R)-1-bis(Trifluoromethyl)phenyl]ethoxy]-3-(4-fluorophenyl)morpholin-4-yl]methyl]-1,4dihydro-1,2,4-triazol-5-one; MK-0869

Lot # FBS21

Aprepitant is a potent human neurokinin-1 (NK-1) antagonist.¹ It is an FDA approved medication for the treatment of chemotherapy-induced and postoperative nausea and vomiting.² Aprepitant is also a selective activator of the K2P channel TRAAK.³ It also has been shown to have multiple anticancer effects.⁴

- 1) Hale et al. (1998), Structural optimization affording 2-(R)-(1-(R)-3,5-bis(trifluoromethyl)phenylethoxy)-3-(S)-(4-fluoro)phenyl-4-(3-oxo-1,2,4-triazol-5-yl)methylmorpholine, a potent, orally active, long-acting morpholine acetal human NK-1receptor antagonist, J. Med. Chem. **41** 4607
- 2) Rapoport and Smit (2017); Clinical pharmacology of neurokinin-1 receptor antagonists for the treatment of nausea and vomiting associated with chemotherapy, Expert Opin. Drug Saf., **16** 697
- 3) McCoull et al. (2022); Aprepitant is a novel, selective activator of the K2P channel TRAAK, Biochem. Biophys. Res. Commun., 588 41
- 4) Muñoz and Coveñas (2020); The Neurokinin-1 Receptor Antagonist Aprepitant: An Intelligent Bullet against Cancer?, Cancer (Basel), 12 2682

PHYSICAL DATA

Molecular Weight: 534.43

Molecular Formula: $C_{23}H_{21}F_7N_4O_3$ Purity: >98% by HPLC NMR: (Conforms)

Solubility: DMSO (>25 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO may be stored at -20°C for up to 3 months.

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