

Product Name: MA 2029

Catalog No.: 4934

Batch No.: 1

CAS Number: 287206-61-5

IUPAC Name: 4-Fluoro-*N*-methyl-L-phenylalanyl-*N*-methyl-L-valyl-3-(1,1-dimethylethyl)-*N*-ethyl-L-tyrosinamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₁H₄₅FN₄O₄·0.67H₂O

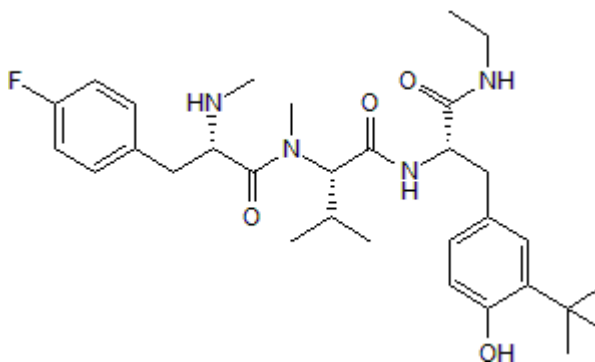
Batch Molecular Weight: 568.72

Physical Appearance: White solid

Solubility: 1eq. HCl to 20 mM
DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.24 (Dichloromethane:Methanol [9:1])

HPLC: Shows >99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -48.7 (Concentration = 1, Solvent = Ethanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.47	8.21	9.85
Found	65.85	8.2	9.4

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Description:

Potent and selective, competitive motilin receptor antagonist ($IC_{50} = 4.9$ nM). Selective for the motilin receptor over a range of other receptors and ion channels. Inhibits motilin-induced duodenal muscle contractions in vitro. Also inhibits motilin-induced colonic and abdominal contractions in vivo. Orally active.

Physical and Chemical Properties:

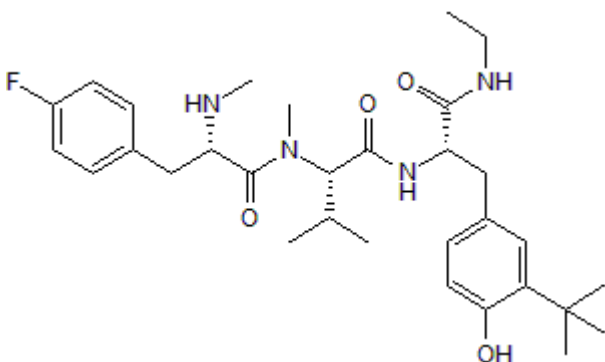
Batch Molecular Formula: $C_{31}H_{45}FN_4O_4 \cdot 0.67H_2O$

Batch Molecular Weight: 568.72

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

1eq. HCl to 20 mM
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Sudo et al (2008) Oral administration of MA-2029, a novel selective and competitive motilin receptor antagonist, inhibits motilin-induced intestinal contractions and visceral pain in rabbits. *Eur.J.Pharmacol.* **581** 296. PMID: 18164286.

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