

Product Name: Telmisartan

Catalog No.: 5139

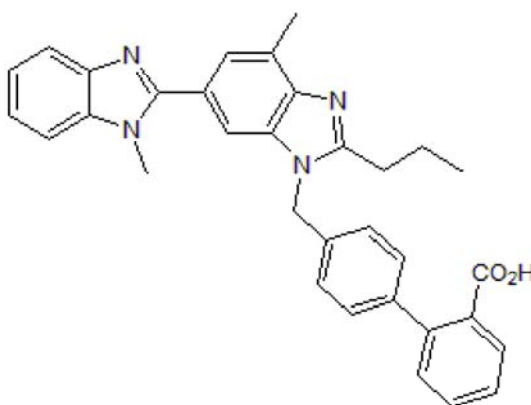
Batch No.: 1

CAS Number: 144701-48-4

IUPAC Name: 4'-[(1,4'-Dimethyl-2'-propyl[2,6'-bi-1*H*-benzimidazol]-1'-yl)methyl]-[1,1'-biphenyl]-2-carboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₃H₃₀N₄O₂
Batch Molecular Weight: 514.62
Physical Appearance: White solid
Solubility: DMSO to 20 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	77.02	5.88	10.89
Found	76.8	5.92	10.98

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Telmisartan is an antagonist of the angiotensin II type 1 receptor (AT₁) (K_i = 3.7 nM). Exhibits antihypertensive activity in a renin-dependent model of hypertension. Partial agonist of PPAR γ receptors; shown to improve insulin sensitivity in rodents receiving high fat diets.

Physical and Chemical Properties:

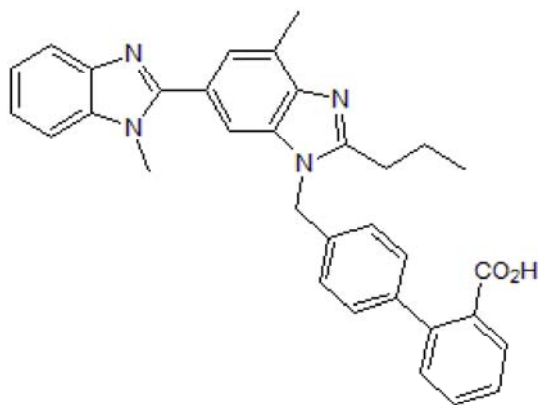
Batch Molecular Formula: C₃₃H₃₀N₄O₂

Batch Molecular Weight: 514.62

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 20 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:

Rong *et al* (2009) An adipose tissue-independent Ins-sensitizing action of telmisartan: a study in lipodystrophic mice. *J.Pharmacol.Exp.Ther.* **331** 1096. PMID: 19770292.

Benson *et al* (2004) Identification of telmis. as a unique angiotensin II receptor antagonist with selective PPAR γ -modulating activity. *Hypertension* **43** 993. PMID: 15007034.

Ries *et al* (1993) 6-substituted benzimidazoles as new nonpeptide angiotensin II receptor antagonists: synthesis, biological activity, and structure-activity relationships. *J.Med.Chem.* **36** 4040. PMID: 8258826.

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