

**Product Name:** Telmisartan

**Catalog No.:** 5139

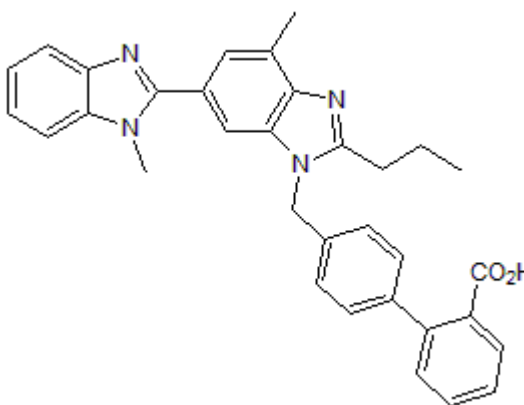
**Batch No.:** 1

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:** C<sub>33</sub>H<sub>30</sub>N<sub>4</sub>O<sub>2</sub>  
**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  
**<sup>1</sup>H 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:**

Antagonist of the angiotensin II type 1 receptor (AT<sub>1</sub>) (K<sub>i</sub> = 3.7 nM). Exhibits antihypertensive activity in a renin-dependent model of hypertension. Partial agonist of PPAR<sub>γ</sub> receptors; shown to improve insulin sensitivity in rodents receiving high fat diets.

**Physical and Chemical Properties:**

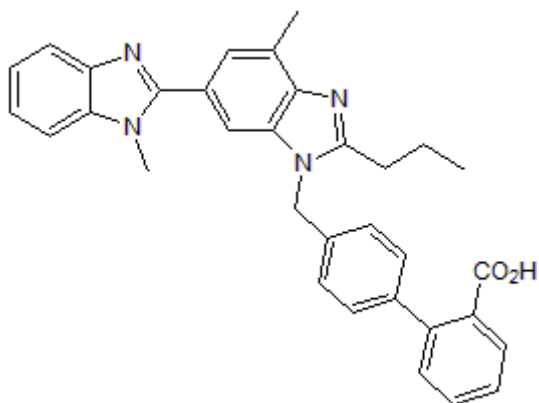
Batch Molecular Formula: C<sub>33</sub>H<sub>30</sub>N<sub>4</sub>O<sub>2</sub>

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:**

**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.

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

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

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