**PRODUCT INFORMATION**

**Telmisartan**

*Item No. 11615*

**CAS Registry No.:** 144701-48-4  
**Formal Name:** 4’-[(1,4’-dimethyl-2’-propyl[2,6’-bi-1H-benzimidazol]-1’-yl)methyl]-[1,1’-biphenyl]-2-carboxylic acid  
**Synonyms:** BIBR 277, Micardis, Pritor  
**MF:** C$_{33}$H$_{30}$N$_4$O$_2$  
**FW:** 514.6  
**Purity:** ≥98%  
**UV/Vis.:** $\lambda_{\text{max}}$: 225, 297 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

**Laboratory Procedures**

Telmisartan is supplied as a crystalline solid. A stock solution may be made by dissolving the telmisartan in the solvent of choice. Telmisartan is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of telmisartan in DMSO is approximately 1 mg/ml and approximately 1.6 mg/ml in DMF.

Telmisartan is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, telmisartan should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Telmisartan has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

Angiotensin II is a peptide hormone which regulates blood pressure and fluid balance, contributing to hypertension, atherosclerosis, left ventricular hypertrophy, myocardial infarction, and heart failure. Telmisartan is a nonpeptide angiotensin II receptor antagonist which selectively and insurmountably inhibits the angiotensin II AT1 receptor subtype ($K_i = 3.7$ nM). It also acts as a partial agonist of PPARγ, activating the receptor to 25-30% of that produced by the full agonist rosiglitazone ($EC_{50} = 4.5$ μM). Through these actions, telmisartan potently reduces blood pressure in various animal models of hypertension, diminishing cardiac hypertrophy, cardiovascular and renal risk, and glomerulosclerosis.

**References**