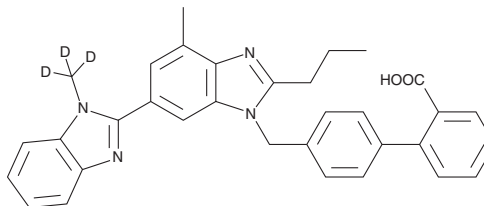


PRODUCT INFORMATION



Telmisartan-d₃ Item No. 22568

CAS Registry No.: 1189889-44-8
Formal Name: 4'-((7'-methyl-1-(methyl-d₃)-2'-propyl-1H,3'H-[2,5'-bibenzo[d]imidazol]-3'-yl)methyl)-[1,1'-biphenyl]-2-carboxylic acid
MF: C₃₃H₂₇D₃N₄O₂
FW: 517.6
Chemical Purity: ≥98% (Telmisartan)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Telmisartan-d₃ is intended for use as an internal standard for the quantification of telmisartan (Item No. 11615) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Telmisartan-d₃ is supplied as a solid. A stock solution may be made by dissolving the telmisartan-d₃ in the solvent of choice, which should be purged with an inert gas. Telmisartan-d₃ is slightly soluble in DMSO and dimethyl formamide.

Description

Telmisartan is a nonpeptide angiotensin (AT) II receptor antagonist which selectively and insurmountably inhibits the AT II receptor subtype AT₁ (K_i = 3.7 nM).¹ It also acts as a partial agonist of peroxisome proliferator-activated receptor gamma (PPARγ), activating the receptor to 25-30% of that produced by the full agonist rosiglitazone (Item No. 71740; EC₅₀ = 4.5 μM).² Through these actions, telmisartan potently reduces blood pressure in various animal models of hypertension, diminishing cardiac hypertrophy, cardiovascular and renal risk, and glomerulosclerosis.³⁻⁵

References

1. Wiene, W., Huel, N., Van Meel, J.C.A., *et al.* Pharmacological characterization of the novel nonpeptide angiotensin II receptor antagonist, BIBR 277. *Br. J. Pharmacol.* **110**(1), 245-252 (1993).
2. Benson, S.C., Pershadsingh, H.A., Ho, C.I., *et al.* Identification of telmisartan as a unique angiotensin II receptor antagonist with selective PPARγ-modulating activity. *Hypertension* **43**(5), 993-1002 (2004).
3. McClellan, K.J. and Markham, A. Telmisartan. *Drugs* **56**(6), 1039-1044 (1998).
4. Jugdutt, B.I. Clinical effectiveness of telmisartan alone or in combination therapy for controlling blood pressure and vascular risk in the elderly. *Clin. Interv. Aging* **5**, 403-416 (2010).
5. Schmieder, R.E., Bakris, G., and Weir, M.R. Telmisartan in incipient and overt diabetic renal disease. *J. Nephrol.* **24**(3), 263-273 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM