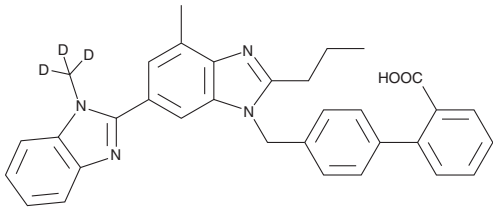
PRODUCT INFORMATION

Telmisartan-d_3

Item No. 22568

CAS Registry No.: 1189889-44-8
Formal Name: 4'-((7'-methyl-1-(methyl-d_3)-2'-propyl-1H,3'H-[2,5'-bibenzo[d]imidazol]-3'-yl) methyl)-[1,1'-biphenyl]-2-carboxylic acid
MF: $C_{33}H_{27}D_3N_4O_2$
FW: 517.6
Chemical Purity: ≥98% (Telmisartan)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
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-d_3 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-d_3 is supplied as a solid. A stock solution may be made by dissolving the telmisartan-d_3 in the solvent of choice, which should be purged with an inert gas. Telmisartan-d_3 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 AT_1 (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; EC_{50} = 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

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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).

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