

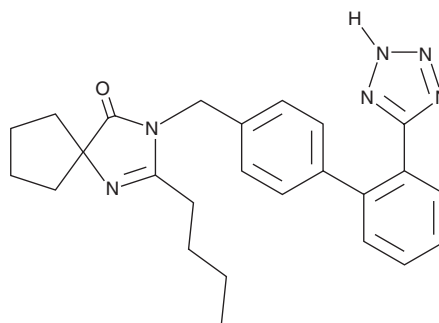
PRODUCT INFORMATION



Irbesartan

Item No. 11952

CAS Registry No.: 138402-11-6
Formal Name: 2-butyl-3-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1,3-diazaspiro[4.4]non-1-en-4-one
Synonyms: BMS 186295, SR 47436
MF: C₂₅H₂₈N₆O
FW: 428.5
Purity: ≥98%
Supplied as: A crystalline 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

Irbesartan is supplied as a crystalline solid. A stock solution may be made by dissolving the irbesartan in the solvent of choice. Irbesartan is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of irbesartan in these solvents is approximately 0.5, 14, and 20 mg/ml, respectively.

Description

Irbesartan is an antagonist of the angiotensin II type 1 (AT₁) receptor (K_i = 1.3 nM).¹ It is an insurmountable antagonist of AT₁, as its antagonism cannot be overcome by increasing concentrations of angiotensin II.² Irbesartan (3, 10, and 30 mg/kg) reduces blood pressure in stroke-prone spontaneously hypertensive rats and increases survival of SPSH rats fed a high-salt low-protein diet.³ It also reduces plaque formation, collagen content, as well as the increased expression of the AT₁ receptor, PDGF-b, MCP-1, and VCAM-1 in a model of diabetes-induced atherosclerosis using apolipoprotein E (ApoE) knockout mice with diabetes induced by streptozotocin (STZ; Item No. 13104).⁴ Formulations containing irbesartan have been used, alone and in combination with diuretics, in the treatment of hypertension.

References

1. Burnier, M. Angiotensin II type 1 receptor blockers. *Circulation* **103**(6), 904-912 (2001).
2. Gradman, A.H. AT₁-receptor blockers: Differences that matter. *J. Hum. Hypertens.* **16**(Suppl 3), S9-S16 (2002).
3. Shimamura, T., Masui, M., Torii, M., *et al.* Hypotensive and prophylactic effects of angiotensin II subtype 1 receptor antagonist, irbesartan, in stroke-prone spontaneously hypertensive rats. *Clin. Exp. Hypertens.* **26**(1), 27-42 (2004).
4. Candido, R., Allen, T.J., Lassila, M., *et al.* Irbesartan but not amlodipine suppresses diabetes-associated atherosclerosis. *Circulation* **109**(12), 1536-1542 (2004).

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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