

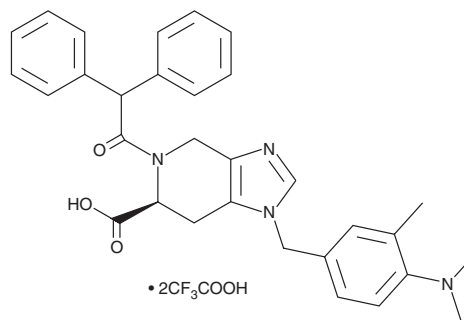
PRODUCT INFORMATION



PD 123319 (trifluoroacetate salt)

Item No. 16099

CAS Registry No.: 136676-91-0
Formal Name: (6S)-1-[[4-(dimethylamino)-3-methylphenyl]methyl]-5-(2,2-diphenylacetyl)-4,5,6,7-tetrahydro-1H-imidazo[4,5-c]pyridine-6-carboxylic acid, di(2,2,2-trifluoroacetate)
MF: $C_{31}H_{32}N_4O_3 \cdot 2CF_3COOH$
FW: 736.7
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

PD 123319 (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the PD 123319 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. PD 123319 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PD 123319 (trifluoroacetate salt) in ethanol and DMF is approximately 30 mg/ml and approximately 25 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PD 123319 (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PD 123319 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Angiotensin II is a peptide hormone that regulates blood pressure and fluid balance, contributing to hypertension, atherosclerosis, left ventricular hypertrophy, myocardial infarction, and heart failure. It binds with high affinity to two distinct receptors: AT_1R (angiotensin type 1 receptor) and AT_2R (angiotensin type 2 receptor). AT_1R activation facilitates the 'classical' effects, including vasoconstriction, cellular growth, and proliferation, whereas AT_2R activation offsets AT_1R -mediated actions, promoting vasodilatation, apoptosis, and anti-growth effects.¹ PD 123319 is a selective, nonpeptide AT_2R antagonist ($IC_{50} = 5.6$ nM vs. 100 nM for AT_1R).^{1,2} It has been used to selectively examine the specific roles for AT_1R and AT_2R in hypertensive and other vascular research-related models.^{3,4}

References

1. Bosnyak, S., Jones, E.S., Christopoulos, A., *et al.* Relative affinity of angiotensin peptides and novel ligands at AT_1 and AT_2 receptors. *Clin. Sci. (Lond.)* **121**(7), 297-303 (2011).
2. Wexler, R.R., Greenlee, W.J., Irvin, J.D., *et al.* Nonpeptide angiotensin II receptor antagonists: The next generation in antihypertensive therapy. *J. Med. Chem.* **39**(3), 625-656 (2014).
3. Makino, N., Sugano, M., Otsuka, S., *et al.* Molecular mechanism of angiotensin II type I and type II receptors in cardiac hypertrophy of spontaneously hypertensive rats. *Hypertension* **30**(4), 796-802 (1997).
4. Daugherty, A., Rateri, D.L., Howatt, D.A., *et al.* PD123319 augments angiotensin II-induced abdominal aortic aneurysms through an AT_2 receptor-independent mechanism. *PLoS One* **8**(4), e61849 (2013).

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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