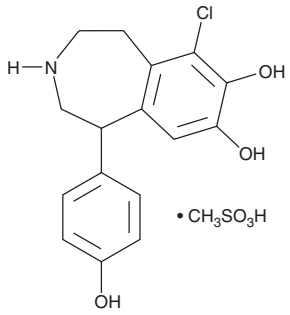
PRODUCT INFORMATION

Fenoldopam (mesylate)

Item No. 17629

CAS Registry No.:	67227-57-0
Formal Name:	6-chloro-2,3,4,5-tetrahydro-1-(4-hydroxyphenyl)-1H-3-benzazepine-7,8-diol, monomethanesulfonate
Synonym:	SKF 82526J
MF:	$C_{16}H_{16}ClNO_3 \bullet CH_3SO_3H$
FW:	401.9
Purity:	≥95%
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

Fenoldopam (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the fenoldopam (mesylate) in the solvent of choice, which should be purged with an inert gas. Fenoldopam (mesylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of fenoldopam (mesylate) in these solvents is approximately 0.25, 1, and 2 mg/ml, respectively.

Fenoldopam (mesylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Fenoldopam (mesylate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Fenoldopam (mesylate) 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

Fenoldopam is an agonist of dopamine D_{1A} (D1R) and D_{1B} (D5R) receptors (K_ds = 17 and 11 nM, respectively).[1,2] Fenoldopam is used to study the roles of these receptors, in cells and *in vivo*, and to alter hemodynamic properties, including hypertension, in animals.[3,4]

References

1. Carey, R.M., Stote, R.M., Dubb, J.W., *et al.* Selective peripheral dopamine-1 receptor stimulation with fenoldopam in human essential hypertension. *J. Clin. Invest.* **74(6)**, 2198-2207 (1984).
2. Tiberi, M., Jarvie, K.R., Silvia, C., *et al.* Cloning, molecular characterization, and chromosomal assignment of a gene encoding a second D_1 dopamine receptor subtype: Differential expression pattern in rat brain compared with the D_{1A} receptor. *Proc. Natl. Acad. Sci. USA* **88(17)**, 7491-7495 (1991).
3. Gildea, J.J., Shah, I.T., Van Sciver, R., *et al.* The cooperative roles of the dopamine receptors, D_1R and D_5R, on the regulation of renal sodium transport. *Kidney Int.* **86(1)**, 118-126 (2014).
4. Swanson, T.A., Conte, T., Deeley, B., *et al.* Hemodynamic correlates of drug-induced vascular injury in the rat using high-frequency ultrasound imaging. *Toxicol. Pathol.* **42(4)**, 784-791 (2014).

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