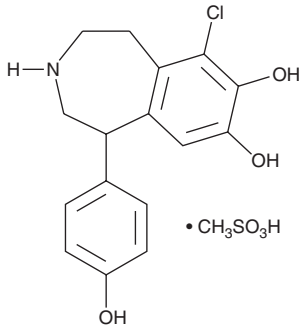
# PRODUCT INFORMATION

## 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%
**UV/Vis.:** $\lambda_{max}$: 209, 283 nm
**Supplied as:** A crystalline solid
**Storage:** -20°C
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly




### 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. Fenoldopam (mesylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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 ($K_d$s = 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**, 7491-7495 (1991).
3. Gildea, J.J., Shah, I.T., Van Sciver, R., *et al.* The cooperative roles of the dopamine receptors, $D_1$R and $D_5$R, 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).





**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