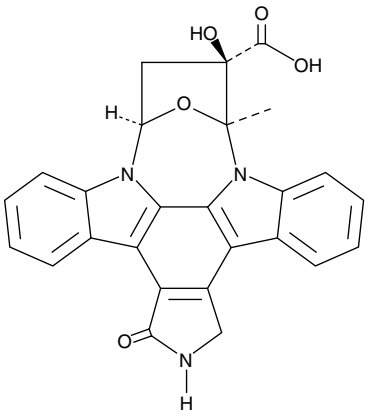
Product Information

K252b

Item No. 11339

CAS Registry No.:	99570-78-2
Formal Name:	(9S,10R,12R)-2,3,9,10,11,12-hexahydro-10-hydroxy-9-methyl-1-oxo-9,12-epoxy-1H-diindolo[1,2,3-fg:3',2',1'-kl]pyrrolo[3,4-i][1,6]benzodiazocine-10-carboxylic acid
MF:	$C_{26}H_{19}N_3O_5$
FW:	453.5
Purity:	≥98%
Stability:	≥2 years at -20°C
Supplied as:	A crystalline solid
UV/Vis.:	λ_{max}: 231, 250, 291, 336, 351, 368 nm



Laboratory Procedures

For long term storage, we suggest that K252b be stored as supplied at -20°C. It should be stable for at least two years.

K252b is supplied as a crystalline solid. A stock solution may be made by dissolving the K252b in the solvent of choice. K252b is soluble in methanol. The solubility of K252b in methanol is approximately 2 mg/ml.

K252b is an indolocarbazole isolated from the actinomycete *Nocardiopsis*, first described as an inhibitor of protein kinase C.[1] However, as this compound does not freely pass through the cell membrane, it is used to inhibit extracellular kinases (ectokinases) of cells in culture.[2,3] K252b inhibits receptor-mediated degranulation from basophil-like RBL-2H3 cells (IC_{50} = 0.5 µg/ml) and human basophils.[4] This extracellular inhibitor is also used in comparison studies with the closely related, cell-permeable inhibitor K252a, particularly in studies of neuronal differentiation.[5,6]

References

1. Yasuzawa, T., Iida, T., Yoshida, M., *et al.* The structures of the novel protein kinase C inhibitors K-252a, b, c, and d. *J. Antibiot.* **39(8)**, 1072-1078 (1986).
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3. Zhu, X., Luo, C., Ferrier, J.M., *et al.* Evidence of ectokinase-mediated phosphorylation of osteopontin and bone sialoprotein by osteoblasts during bone formation *in vitro*. *Biochem. J.* **323**, 637-643 (1997).
4. Teshima, R., Saito, Y., Ikebuchi, H., *et al.* Effect of an ectokinase inhibitor, K252b, on degranulation and Ca^{2+} signals of RBL-2H3 cells and human basophils. *J. Immunol.* **159(2)**, 964-969 (1997).
5. Thompson, A.F. and Levin, L.A. Neuronal differentiation by analogs of staurosporine. *Neurochem. Int.* **56(4)**, 554-560 (2010).
6. Kawamura, N., Kawamura, K., Manabe, M., *et al.* Inhibition of brain-derived neurotrophic factor/tyrosine kinase B signaling suppresses choriocarcinoma cell growth. *Endocrinology* **151(7)**, 3006-3014 (2010).

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