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# ProductInformation

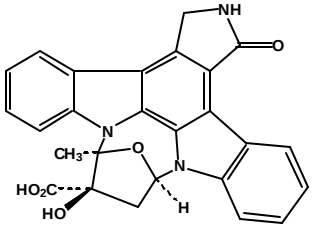
**K-252b Ready-Made solution**
**from *Nonomuraea longicatena***

Catalog Number **K2139**
Storage Temperature –20 °C

CAS RN: 99570-78-2

## Product Description

Molecular Weight: 453.45
Molecular formula: $C_{26}H_{19}N_3O_5$




K-252b belongs to the K-252 family of compounds, which are general and potent inhibitors of various protein kinases, possibly acting by interfering at or near the ATP binding site.[1] K-252b is an inhibitor of protein kinase A, G, and C. The highest inhibition potency is of protein kinases C with a $K_i$ value of 20 nM, comparable to K-252a (with a $K_i$ value of 18-25 nM).[2] Compared to K-252a, K-252b exhibits reduced inhibitory potency for cyclic nucleotide-dependent protein kinases.[2] K-252b can potentiate the neurotrophin-3-induced tyrosine phosphorylation of Trk on PC12 cells.[1,3] K-252b is also a selective and non-toxic inhibitor of nerve growth factor (NGF) action in the brain.[4] K-252b was found to be as potent as K-252a in inhibiting the nerve growth factor-induced neurite outgrowth on PC12, although it does not permeate the cell membrane as does K-252a.[5] In cultured cortical neurons, K-252b not only blocks the synapse formation but also inhibits the phosphorylation of some cell surface proteins.[6,7] K-252b was used, as a blocker, in studies of the mechanism of ATP-induced long-term potentiation (LTP).[8] It was found to markedly reduce the relaxation of the $K^+$-contracted rat vas deferens caused by ATP.[9]

## Reagent

K-252b is supplied as a 1 mM solution in DMSO.

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

Store protected from light at –20 °C. Under these conditions the product is stable for 3 years.

## References

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5. Nagashima, K., et al., *FEBS Lett.*, **293**, 119-123 (1991).
6. Kuroda, Y., et al., *Neurosci. Lett.*, **135**, 255–258 (1992).
7. Muramoto, K., et al., *Biochem. Biophys. Res. Commun.*, **205**, 1467-1473 (1994).
8. Fujii, S., et al., *Neuroscience*, **113**, 617-628 (2002).
9. Bultmann, R., et al., *Eur. J. Pharmacol.*, **436**, 135-143 (2002).

ES,SP,AH,PHC 10/05-1