

# K252a

Publication Number MAN0004381

Rev. 1.00

<b>Catalog Number:</b>	PHZ1131	
<b>Quantity:</b>	100 µg	
<b>Lot Number:</b>	See product label.	
<b>Appearance:</b>	Lyophilized solid	
<b>Molecular Formula:</b>	C <sub>27</sub> H <sub>21</sub> N <sub>3</sub> O <sub>5</sub>	
<b>Molecular Weight:</b>	467.5	
<b>Purity:</b>	98%	
<b>Summary:</b>	K252a inhibits PKA, PKG, MLCK, PKC, CaMK, phosphorylase kinase, MAP kinase, the <i>trk</i> family of receptor tyrosine kinases, and numerous other kinases by acting as a competitive inhibitor with respect to ATP. K252a binds to neuroblastoma membrane with high affinity (2.7 nM). This compound is also observed to promote survival of primary neuronal cultures (75 nM) and to induce neurite outgrowth in SH-SY5Y neuroblastoma cells, an event which is accompanied by enhanced phosphorylation of FAK.	
<b>Biological Activity:</b>	PKA: K <sub>i</sub> = 18 nM PKG: K <sub>i</sub> = 20 nM MLCK: K <sub>i</sub> = 17 nM PKC: K <sub>i</sub> = 25 nM	CaMK: K <sub>i</sub> = 1.8 nM Phosphorylase Kinase: IC <sub>50</sub> = 1.7 nM Trk: IC <sub>50</sub> = 3 nM
<b>Solubility:</b>	Soluble in DMSO at a concentration of 1 mg/mL; soluble in DMF at a concentration of 1 mg/mL.	
<b>Sterility:</b>	This product is not sterile.	
<b>Storage:</b>	Store, as supplied, at -20°C. Upon solubilization, apportion into working aliquots and store at -20°C. Avoid repeated freeze/thaw cycles. Solutions are stable at -20°C for up to three months.	
<b>Expiration Date:</b>	Expires one year from date of receipt when stored as instructed.	
<b>References:</b>	<p>Kase, H., et al. (1987) K252 compounds, novel and potent inhibitors of protein kinase C and cyclic nucleotide-dependent protein kinases. <i>Biochem. Biophys. Res. Commun.</i> 142(2):436-440.</p> <p>Yamada, K., et al. (1987) K252a, a new inhibitor of protein kinase C, concomitantly inhibits 40K protein phosphorylation and serotonin secretion in a phorbol ester-stimulated platelets. <i>Biochem. Biophys. Res. Commun.</i> 144(1):35-40.</p> <p>Yamada, M., et al. (1997) Insulin receptor substrate (IRS)-1 and IRS-2 are tyrosine-phosphorylated and associated with phosphatidylinositol 3-kinase in response to brain-derived neurotrophic factor in cultured cerebral cortical neurons. <i>J. Biol. Chem.</i> 272(48):30334-30339.</p> <p>Dickens, G., et al. (1997) Involvement of protein kinase C in nerve growth factor- and K252a-stimulated calcium uptake into PC12 cells. <i>J. Neurosci. Res.</i> 47(3):271-276.</p> <p>Angeles, T.S., S.X. Yang, C. Steffler, and C.A Dionne (1998) Kinetics of trkA tyrosine kinase activity and inhibition by K-252a. <i>Arch. Biochem. Biophys.</i> 349(2):267-274.</p> <p>McLaughlin, J.P. and C. Chavkin (2001) Tyrosine phosphorylation of the mu-opioid receptor regulates agonist intrinsic efficacy. <i>Mol. Pharmacol.</i> 59(6):1360-1368.</p>	
	Avoid contact with eyes, skin, and mucous membranes. Wear protective clothing when handling this product. Not for human use.	

## Related Products:

Product	Catalog no.
ERK1&2 [pTpY <sup>185/187</sup> ] antibody	44-680G
Tau [pT <sup>212</sup> ] antibody	44-740G
Tau [pS <sup>214</sup> ] antibody	44-742G
Tau [pS <sup>262</sup> ] antibody	44-750G
Tau [pS <sup>356</sup> ] antibody	44-751G
Tau [pS <sup>409</sup> ] antibody	44-760G

## Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

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