Rev	is	ion	7
rev	15	1011	1

Store at -20C	K252a	HE .	Cell Signaling
		Orders:	877-616-CELL (2355) orders@cellsignal.com
24		Support	:: 877-678-TECH (8324)
1275		Web:	info@cellsignal.com cellsignal.com
Ť#		3 Trask Lane Danvers	Massachusetts 01923 USA
For Re	esearch Use Only. Not for Use in Diagnostic Procedures.		

Background	Originally isolated from the soil fungi <i>Nocardiopisis sp.</i> , K252a is a staurosporine analog that inhibits various protein kinases through competition with the ATP binding site (1,2). K252a is a reversible cell-permeable, potent inhibitor of phosphorylase kinase ($IC_{50} = 1.7 \text{ nM}$), protein kinase A (PKA) ($IC_{50} = 140 \text{ nM}$), and protein kinase C (PKC) ($IC_{50} = 470 \text{ nM}$) (3,4). K252a is also known to inhibit protein kinase G and CaM kinase II (5,6). K252a inhibits nerve growth factor induced Trk activation ($IC_{50} = 3 \text{ nM}$), as well as downstream signaling (5,7,8). K252a is reported to induce apoptosis and cell cycle arrest through cdc25 and cdc2 inhibition (9).
Molecular Formula	C ₂₇ H ₂₁ N ₃ O ₅
Molecular Weight	467.47 g/mol
Purity	>99%
CAS	99533-80-9
Solubility	Soluble in DMSO at 100mg/ml.
Storage	Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.
Directions for Use	K252a is supplied as a lyophilized powder. For a 1 mM stock, reconstitute the 100 μ g in 213.9 μ l DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used as a pretreatment at 0.1-1 μ M for 0.5-1 hr prior to treating with a stimulator. Soluble in DMSO at 100 mg/ml; poorly soluble in ethanol.
Background References	 Kase, H. et al. (1986) <i>J Antibiot (Tokyo)</i> 39, 1059-65. Kase, H. et al. (1987) <i>Biochem Biophys Res Commun</i> 142, 436-40. Elliott, L.H. et al. (1990) <i>Biochem Biophys Res Commun</i> 171, 148-54. Davis, P.D. et al. (1992) <i>J Med Chem</i> 35, 177-84. Koizumi, S. et al. (1988) <i>J Neurosci</i> 8, 715-21. Hashimoto, Y. et al. (1991) <i>Biochem Biophys Res Commun</i> 181, 423-9. Berg, M.M. et al. (1992) <i>J Biol Chem</i> 267, 13-6. Tapley, P. et al. (1992) <i>Oncogene</i> 7, 371-81. Chin, L.S. et al. (1999) <i>Cancer Invest</i> 17, 391-5.

Trademarks and Patents Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. XP is a registered trademark of Cell Signaling Technology, Inc. All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information. Limited Uses Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless

> force or effect. Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not

separately accepted in writing by a legally authorized representative of CST, are rejected and are of no

sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.