# PRODUCT INFORMATION



# **CGP 77675 (hydrate)**

Item No. 21089

Formal Name: 1-[2-[4-[4-amino-5-(3-methoxyphenyl)-

7H-pyrrolo[2,3-d]pyrimidin-7-yl]phenyl]

ethyl]-4-piperidinol, hydrate

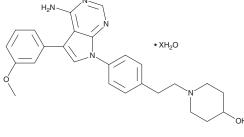
MF:  $C_{26}H_{29}N_5O_2 \bullet XH_2O$ 

FW: 443.5 **Purity:** 

 $\lambda_{max}$ : 246, 291 nm A crystalline solid UV/Vis.: Supplied as:

Storage: -20°C Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



## **Laboratory Procedures**

CGP 77675 (hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the CGP 77675 (hydrate) in the solvent of choice, which should be purged with an inert gas. CGP 77675 (hydrate) is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

## Description

CGP 77675 is an inhibitor of Src family kinases (SFKs) that blocks the phosphorylation of peptide substrates and autophosphorylation of purified c-Src ( $IC_{50}s = 5-20$  and 40 nM, respectively).<sup>1</sup> It also inhibits the SFKs Lck and c-Yes with low nanomolar  $IC_{50}$  values.<sup>1-3</sup> CGP 77675 is used to elucidate the role of SFKs in such processes as bone resorption, tight junction formation in epithelial cells, and allograft survival.  $^{1,2,4}$ It can also be used in combination with the GSK3 inhibitor CHIR99021 (Item No. 13122) to maintain mouse embryonic stem cells.5

#### References

- 1. Missbach, M., Jeschke, M., Feyen, J., et al. A novel inhibitor of the tyrosine kinase Src suppresses phosphorylation of its major cellular substrates and reduces bone resorption in vitro and in rodent models in vivo. Bone 24(5), 437-449 (1999).
- 2. Chen, Y.-H., Goodenough, D.A., and Jeansonne, B. Nonreceptor tyrosine kinase c-Yes interacts with occludin during tight junction formation in canine kidney epithelial cells. Mol. Biol. Cell 13(4), 1227-1237 (2002).
- 3. M. Šuša, M., N.-H. Luong-Nguyen, N.-H., J. Crespo, J., et al. Active recombinant human tyrosine kinase c-Yes: Expression in baculovirus system, purification, comparison to c-Src, and inhibition by a c-Src inhibitor. Protein Expr. Purif. 19(1), 99-106 (2000).
- Zhang, Q., Fairchild, R.L., Reich, M.B., et al. Inhibition of Src kinases combined with CD40 ligand blockade prolongs murine cardiac allograft survival. Transplantation 80(8), 1112-1120 (2005).
- Shimizu, T., Ueda, J., Ho, J.C., et al. Dual inhibition of Src and GSK3 maintains mouse embryonic stem cells, whose differentiation is mechanically regulated by Src signaling. Stem Cells 30(7), 1394-1404 (2012).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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