

## NG 25 (hydrochloride hydrate)

## Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	NG 25 is a type II kinase inhibitor that inhibits MAP4K2 and TAK1 (IC50s = 21.7 and 149 nM, respectively). It also inhibits the Src family kinases Src and LYN (IC50s = 113 and 12.9 nM, respectively) and Abl family kinases (IC50s = 75.2 nM), as well as CSK, FER, and p38 $\alpha$ (IC50s = 56.4, 82.3, and 102 nM, respectively). NG 25 (100 nM) prevents TNF- $\alpha$ -induced IKK $\alpha$ / $\beta$ phosphorylation and I $\kappa$ B- $\alpha$ degradation in L929 cells. It inhibits secretion of IFN- $\alpha$ and IFN- $\beta$ induced by CpG type B and CL097, respectively, in Gen2.2 cells in a concentration-dependent manner. NG 25 decreases cell viability of HCT116KRASWT, and to a greater degree of HCT116KRASG13D, colorectal cancer cells in a concentration-dependent manner. It also reduces tumor growth and increases the number of TUNEL-positive tumor cells in a CT26KRASG12D mouse orthotopic model of colorectal cancer.
Targets(IC50)	Others,Ras,Kras

## Solubility Information

Solubility	H2O: 5 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Reference

- Tan, L., Nomanbhoy, T., Gurbani, D., et al. Discovery of type II inhibitors of TGF $\beta$ -activated kinase 1 (TAK1) and mitogen-activated protein kinase kinase kinase 2 (MAP4K2). *J. Med. Chem.* 58(1)183-196(2015)
- Pauls, E., Shpiro, N., Peggie, M., et al. Essential role for IKK $\beta$  in production of type 1 interferons by plasmacytoid dendritic cells. *Biol. Chem.* 287(23)19216-19228(2012)
- Ma, Q., Gu, L., Liao, S., et al. NG25, a novel inhibitor of TAK1, suppresses KRAS-mutant colorectal cancer growth in vitro and in vivo. *Apoptosis* 24(1-2)83-94(2019)

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