PRODUCT INFORMATION

NG 25 (hydrochloride hydrate)

Item No. 27579

Formal Name: N-[4-[(4-ethyl-1-piperazinyl)methyl]-3-(trifluoromethyl)phenyl]-4-methyl-3-(1H-pyrrolo[2,3-b]pyridin-4-yloxy)-benzamide, trihydrochloride, hydrate

MF: $C_{29}H_{30}F_3N_5O_2$ • 3HCl [XH_2O]

FW: 647.0

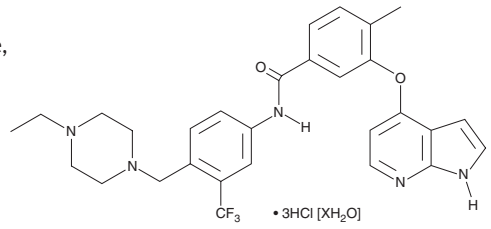
Purity: ≥98%

UV/Vis.: λ_{max}: 275 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

NG 25 (hydrochloride hydrate) is supplied as a solid. A stock solution may be made by dissolving the NG 25 (hydrochloride hydrate) in water. The solubility of NG 25 (hydrochloride hydrate) in water is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

NG 25 is a type II kinase inhibitor that inhibits MAP4K2 and TAK1 (IC_{50}s = 21.7 and 149 nM, respectively).[1] It also inhibits the Src family kinases Src and LYN (IC_{50}s = 113 and 12.9 nM, respectively) and Abl family kinases (IC_{50}s = 75.2 nM), as well as CSK, FER, and p38α (IC_{50}s = 56.4, 82.3, and 102 nM, respectively). NG 25 (100 nM) prevents TNF-α-induced IKKα/β phosphorylation and IκB-α degradation in L929 cells. It inhibits secretion of IFN-α and IFN-β induced by CpG type B and CL097, respectively, in Gen2.2 cells in a concentration-dependent manner.[2] NG 25 decreases cell viability of $HCT116^{KRASWT}$, and to a greater degree of $HCT116^{KRASG13D}$, colorectal cancer cells in a concentration-dependent manner.[3] It also reduces tumor growth and increases the number of TUNEL-positive tumor cells in a $CT26^{KRASG12D}$ mouse orthotopic model of colorectal cancer.

References

1. Tan, L., Nomanbhoy, T., Gurbani, D., *et al.* Discovery of type II inhibitors of TGFβ-activated kinase 1 (TAK1) and mitogen-activated protein kinase kinase kinase kinase 2 (MAP4K2). *J. Med. Chem.* **58(1)**, 183-196 (2015).
2. Pauls, E., Shpiro, N., Peggie, M., *et al.* Essential role for IKKβ in production of type 1 interferons by plasmacytoid dendritic cells. *J. Biol. Chem.* **287(23)**, 19216-19228 (2012).
3. 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).

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

SAFETY DATA
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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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