

# PRODUCT INFORMATION



## WNK463

Item No. 37673

CAS Registry No.: 2012607-27-9

Formal Name: N-(1,1-dimethylethyl)-1-[1-[5-[5-(trifluoromethyl)-1,3,4-oxadiazol-2-yl]-2-pyridinyl]-4-piperidinyl]-1H-imidazole-5-carboxamide

MF:  $C_{21}H_{24}F_3N_7O_2$

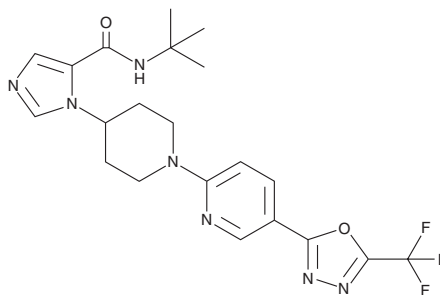
FW: 463.5

Purity:  $\geq 95\%$

Supplied as: A solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

WNK463 is supplied as a solid. A stock solution may be made by dissolving the WNK463 in the solvent of choice, which should be purged with an inert gas. WNK463 is soluble in methanol.

### Description

WNK463 is an inhibitor of WNK lysine-deficient protein kinase 1 (WNK1), WNK2, WNK3, and WNK4 ( $IC_{50}$ s = 5, 1, 6, and 9 nM, respectively).<sup>1</sup> It is selective for WNK1-4 over a panel of 442 kinases at 10  $\mu\text{M}$ . *In vivo*, WNK463 (1, 3, and 10 mg/kg) decreases blood pressure, as well as increases urine output and urinary sodium and potassium excretion rates in spontaneously hypertensive rats (SHRs). It also decreases tumor growth, induces intratumoral apoptosis, and increases intratumoral levels of CD4<sup>+</sup> and CD8<sup>+</sup> T cells in an MC-38 mouse syngeneic colon cancer model when administered at doses of 5 and 10 mg/kg.<sup>2</sup>

### References

1. Yamada, K., Park, H.-M., Rigel, D.F., *et al.* Small-molecule WNK inhibition regulates cardiovascular and renal function. *Nat. Chem. Biol.* **129(11)**, 896-898 (2016).
2. Yoon, H.J., Kim, G.-C., Oh, S., *et al.* WNK3 inhibition elicits antitumor immunity by suppressing PD-L1 expression on tumor cells and activating T-cell function. *Exp. Mol. Med.* **54(11)**, 1913-1926 (2022).

#### 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.

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