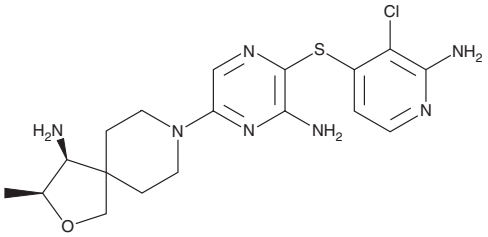
PRODUCT INFORMATION

TNO155

Item No. 32525

CAS Registry No.:	1801765-04-7
Formal Name:	(3S,4S)-8-[6-amino-5-[(2-amino-3-chloro-4-pyridinyl)thio]-2-pyrazinyl]-3-methyl-2-oxa-8-azaspiro[4.5]decan-4-amine
MF:	$C_{18}H_{24}ClN_7OS$
FW:	421.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 269, 355 nm
Supplied as:	A crystalline 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

TNO155 is supplied as a crystalline solid. A stock solution may be made by dissolving the TNO155 in the solvent of choice, which should be purged with an inert gas. TNO155 is soluble in DMSO.

Description

TNO155 is an orally bioavailable allosteric inhibitor of Src homology region 2 domain-containing phosphatase 2 (SHP-2; IC_{50} = 0.011 µM).[1] It is selective for SHP-2 over a panel of 52 kinases and phosphatases (IC_{50}s = >10 µM for all). TNO155 decreases phosphorylation of ERK in, and inhibits proliferation of, KYSE-520 human esophageal cancer cells (IC_{50}s = 0.011 and 0.1 µM, respectively). It acts synergistically with dabrafenib (Item No. 16989) and trametinib (Item No. 16292) to inhibit proliferation of B-RAF^{V600E}-expressing HT-29, RKO, and MDST8 colorectal cancer cells.[2] TNO155 (2.5, 10, and 20 mg/kg twice per day) reduces tumor growth in a KYSE-520 mouse xenograft model.[1]

References

1. LaMarche, M.J., Acker, M., Argintaru, A., *et al.* Identification of TNO155, an allosteric SHP2 inhibitor for the treatment of cancer. *J. Med. Chem.* **63(22)**, 13578-13594 (2020).
2. Liu, C., Lu, H., Wang, H., *et al.* Combinations with allosteric SHP2 inhibitor TNO155 to block receptor tyrosine kinase signaling. *Clin. Cancer Res.* **27(1)**, 342-354 (2021).

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