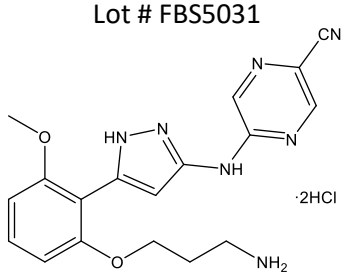
Catalog # 10-4359
Prexasertib

CAS# 1234015-54-3

5-[[5-[2-(3-Aminopropoxy)-6-methoxyphenyl]-1*H*-pyrazol-3-yl]amino]pyrazine-2-carbonitrile dihydrochloride; LY2606368 dihydrochloride

Lot # FBS5031



Prexasertib is a potent inhibitor of CHK1 (IC_{50} = <1 nM) and CHK2 (IC_{50} = 8 nM).[1] It also inhibits RSK1 (IC_{50} = 9 nM).[1] Prexasertib displayed efficacy in various cancer models alone and in combination with other agents including anti-PD-L1 therapy.[2-6] It promoted neuroprotection, axon regeneration, and functional recovery after CNS injury.[7] The cytotoxic effects of prexasertib have been attributed to dual inhibition of CHK1 and AMPK.[8]

1) King *et al*. (2015), *LY2606368 Causes Replication Catastrophe and Antitumor Effects through CHK1-Dependent Mechanisms*; Mol. Cancer Ther. **14** 2004
2) Huang *et al*. (2024), *Inhibition of Chk1 with Prexasertib Enhances the Anticancer Activity of Ciclopirox in Non-Small Cell Lung Cancer Cells*; Cells **13** 1752
3) Zhang *et al*. (2025), *Prexasertib exerts a synergistic effect on the antitumor activity of Lenvatinib through ALOX15-mediated ferroptosis in hepatocellular carcinoma*; Int. Immunopharmacol. **150** 114278
4) Chen *et al*. (2025), *Combined CHK1 and PD-L1 blockade as a novel therapeutic strategy against stemness and immunosuppression in ovarian cancer.*; Cancer Immunol. Immunother. **74** 365
5) Zhang *et al*. (2026), *CHK1 inhibition by prexasertib sensitizes cisplatin-resistant malignant tumor cells via checkpoint abrogation and STAT1-driven PD-L1 upregulation*; Int. Immunopharmacol. **171** 116126
6) Morimoto *et al*. (2026), *Chk1 inhibition emerges as the most effective partner for PARP inhibition in BRCA-proficient pancreatic cancer.*; Discov. Oncol. **Online ahead of print**
7) Taylor *et al*. (2022), *Inhibition of Chk2 promotes peuroprotection, axon regeneration, and functional recovery after CNS injury*; Sci. Adv. **8** eabq2611
8) Guo *et al*. (2026), *The cytotoxic effect of prexasertib is a consequence of dual inhibition on both CHK1 and AMPK*; Cell Chem. Biol. **33** 767

PHYSICAL DATA

Molecular Weight:	438.32
Molecular Formula:	$C_{18}H_{19}N_7O_2 \cdot 2HCl$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (10 mg/mL)
Physical Description:	Light brown solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 2 years from the date of purchase.
	Solutions in DMSO may be stored at -20°C for up to 3 months.

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