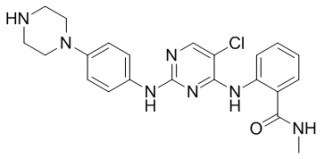
CTX-0294885

Cat. No.:	HY-15985
CAS No.:	1439934-41-4
Molecular Formula:	$C_{22}H_{24}ClN_7O$
Molecular Weight:	437.93
Target:	Others
Pathway:	Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (228.35 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2835 mL	11.4173 mL	22.8347 mL
5 mM	0.4567 mL	2.2835 mL	4.5669 mL
10 mM	0.2283 mL	1.1417 mL	2.2835 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CTX-0294885 is a a novel bisanilino pyrimidine; exhibits inhibitory activity against a broad range of kinases in vitro, and further developed it into a Sepharose-supported kinase capture reagent.Target: Kinase capture reagentUse of a quantitative proteomics approach confirmed the selectivity of CTx-0294885-bound beads for kinase enrichment. Large-scale CTx-0294885-based affinity purification followed by LC-MS/MS led to the identification of 235 protein kinases from MDA-MB-231 cells, including all members of the AKT family that had not been previously detected by other broad-spectrum kinase inhibitors. Addition of CTx-0294885 to a mixture of three kinase inhibitors commonly used for kinase-enrichment increased the number of kinase identifications to 261, representing the largest kinome coverage from a single cell line reported to date. Coupling phosphopeptide enrichment with affinity purification using the four inhibitors enabled the identification of 799 high-confidence phosphosites on 183 kinases, ⊠10% of which were localized to the activation loop, and included

previously unreported phosphosites on BMP2K, MELK, HIPK2, and PRKDC. Therefore, CTx-0294885 represents a powerful new reagent for analysis of kinome signaling networks that may facilitate development of targeted therapeutic strategies.

CUSTOMER VALIDATION

- Int J Mol Sci. 2021, 22(6), 3063.
- ChemMedChem. 2017 Nov 22;12(22):1857-1865.

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REFERENCES

[1]. Zhang L, et al. Characterization of the novel broad-spectrum kinase inhibitor CTx-0294885 as an affinity reagent for mass spectrometry-based kinome profiling. J Proteome Res. 2013 Jul 5;12(7):3104-16.

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