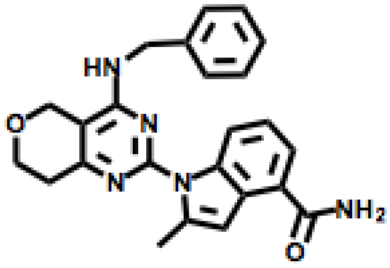
Xcess Biosciences Inc.
3525 Del Mar Heights Rd, Suite #216
San Diego, CA 92130-2122

http://www.xcessbio.com
Phone: 1-858-866-8887
Toll free: 1-866-706-2330
Fax: 1-619-810-0718
Email: info@xcessbio.com

p97 AAA ATPase Inhibitor – CB-5083

Chemical Name: 1-(4-(benzylamino)-7,8-dihydro-5H-pyrano[4,3-d]pyrimidin-2-yl)-2-methyl-1H-indole-4-carboxamide



Molecular Weight:	413.47
Formula:	$C_{24}H_{23}N_5O_2$
Purity:	≥98%
CAS#:	1542705-92-9
Solubility:	DMSO up to 100 mM
Storage	Powder: 4 °C 1 year DMSO: 4 °C 3 months -20 °C 1 year

Biological Activity:

CB-5083 is a highly potent, selective and orally bioavailable p97 AAA ATPase inhibitor with IC_{50} ~11 nM. Treatment of tumor cells with CB-5083 leads to accumulation of poly-ubiquitinated proteins, retention of endoplasmic reticulum-associated degradation (ERAD) substrates, and generation of irresolvable proteotoxic stress, leading to activation of the apoptotic arm of the unfolded protein response. In xenograft models, CB-5083 causes modulation of key p97-related pathways, induces apoptosis, and has antitumor activity in a broad range of both hematological and solid tumor models.

How to Use:

In vitro: CB-5083 was used at 1-2.5 μM final concentration in various assays.

In vivo: CB-5083 was dosed to mice orally at 25-100 mg/Kg once or twice per day.

Reference:

1. Zhou HJ, et al. Discovery of a First-in-Class, Potent, Selective, and Orally Bioavailable Inhibitor of the p97 AAA ATPase (CB-5083). (2015) J Med Chem. 58(24):9480-97.
2. Anderson DJ, et al. Targeting the AAA ATPase p97 as an Approach to Treat Cancer through Disruption of Protein Homeostasis. (2015) Cancer Cell. 28(5):653-65.