

## Product Information

**Product ID** T5996  
**CAS No.** 639089-54-6  
**Chemical Name**

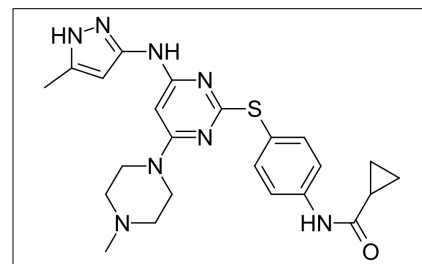
**Synonym** VX680, MK0457

**Formula** C<sub>23</sub>H<sub>28</sub>N<sub>8</sub>O<sub>5</sub>  
**Formula Wt.** 464.59  
**Melting Point** 245-260 °C  
**Purity** ≥98%  
**Solubility** DMSO at 100 mg/mL

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Tozasertib is an anticancer chemotherapeutic pan-aurora kinase (AurK) inhibitor that also inhibits FMS-like tyrosine kinase 3 (FLT3) and Abl. Tozasertib is currently in clinical trials as a potential treatment for acute lymphoblastic leukemia (ALL). In cellular models of cancer, tozasertib activates caspase-3 and PARP and decreases expression of HDAC, increasing apoptosis and inhibiting cell growth. In other cellular models, tozasertib inhibits cell proliferation and metastasis by blocking downstream ERK signaling and downregulating cdc25c and cyclin B. This compound also decreases tumor growth in an in vivo model of prostate cancer.



**Bulk quantities available upon request**

Product ID	Size
T5996	5 mg
T5996	25 mg
T5996	100 mg
T5996	250 mg

**References** Okabe S, Tauchi T, Tanaka Y, et al. Activity of histone deacetylase inhibitors and an Aurora kinase inhibitor in BCR-ABL-expressing leukemia cells: Combination of HDAC and Aurora inhibitors in BCR-ABL-expressing cells. *Cancer Cell Int.* 2013 Apr 4;13(1):32. PMID: 23556431.

Li Y, Zhou W, Wei L, et al. The effect of Aurora kinases on cell proliferation, cell cycle regulation and metastasis in renal cell carcinoma. *Int J Oncol.* 2012 Dec;41(6):2139-49. PMID: 23007526.

Giles FJ, Swords RT, Nagler A, et al. MK-0457, an Aurora kinase and BCR-ABL inhibitor, is active in patients with BCR-ABL T3151 leukemia. *Leukemia.* 2013 Jan;27(1):113-7. PMID: 22772060.

Jeet V, Russell PJ, Verma ND, et al. Targeting aurora kinases: a novel approach to curb the growth & chemoresistance of androgen refractory prostate cancer. *Curr Cancer Drug Targets.* 2012 Feb;12(2):144-63. PMID: 22229247.

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Oliveira TM, Ahmad R, Engh RA. VX680 binding in Aurora A: π-π interactions involving the conserved aromatic amino acid of the flexible glycine-rich loop. *J Phys Chem A.* 2011 Apr 28;115(16):3895-904. PMID: 21306143.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.