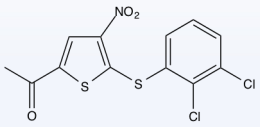
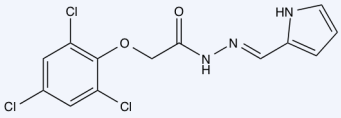
FOCUS on...

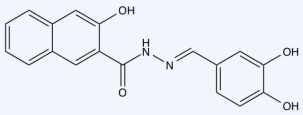
New and Novel Tools For Cancer Research



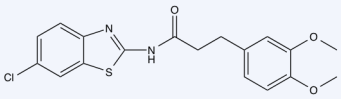
P5091



ML-239



Dynasore



KY-02111

References

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P5091

Selective inhibitor of the ubiquitin-specific protease USP7 (IC_{50}=4.2 μM)[1,2]. Induces apoptosis in multiple myeloma cells and overcomes bortezomib resistance[1]. Displays antiangiogenesis activity *in vivo*[2].

10-1422 5 mg , 25 mg

ML-239

Cancer stem cells (CSC) are resistant to standard cancer treatments. ML-239 was found to be selectively toxic to human breast epithelial cells transdifferentiated to a mesenchymal phenotype (IC_{50}= 1.2 μM)[3]. Although its direct target has not yet been identified ML-239 is an important tool for research in selective killing of CSCs.

10-1417 5 mg , 25 mg

Manzamine A

Manzamine A, a marine sponge alkaloid, inhibits vacuolar ATPases[4]. At 10μM, it induces autophagy markers in pancreatic cancer cells suggesting that it inhibits autophagosome turnover. As autophagy is essential for pancreatic tumor growth, manzamine may be a potential pancreatic cancer therapeutic.

10-2675 1 mg , 5 mg

680C91

A potent and selective inhibitor of tryptophan 2,3-dioxygenase (TDO) (K_i=42 nM)[5,6]. Displays no activity against indoleamine 2,3-dioxygenase, MAO-A and B and does not affect serotonin uptake. TDO inhibition by 680C91 in glioma cells blocked the release of kynurenine, an endogenous tumor promoting AHR ligand[7].

10-1443 5 mg , 25 mg

Dynasore

Dynasore, a highly selective dynamin inhibitor (GTPase activity), suppresses lamellipodia formation and cancer cell invasion by destabilizing actin filaments[8].

10-1427 5 mg , 25 mg

KY-02111

Inhibits Wnt signaling but in a manner that is distinct from previously described Wnt inhibitors[9]. Promotes cardiac differentiation of human pluripotent stem cells.

10-1437 5 mg , 25 mg

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