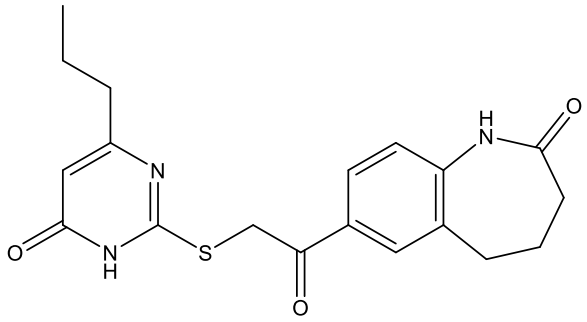
Catalog # 10-4148

S07-2010

CAS# 1223194-71-5

7-(2-((6-Oxo-4-propyl-1,6-dihydropyrimidin-2-yl)thio)acetyl)-1,3,4,5-tetrahydro-2H-benzo[b]azepin-2-one

Lot # FBA9028



S07-2010 is a pan-aldo-keto reductase 1C (AKR1C) inhibitor (IC_{50}'s for AKR1C isoforms: 1C1 = 470 nM, 1C2 = 730 nM, 1C3 = 190 nM, 1C4 = 360 nM). Dysregulated AKR1C3 expression (and overexpression of all AKR1C isoforms in general) is related to resistance to radio- and chemotherapy in various tumor types and is associated with development of and poor prognosis in many cancers. S07-2010 displayed cytotoxicity to doxorubicin-resistant MCF-7 cells (IC_{50} = 127.5 µM) and cisplatin-resistant A549 cells (IC_{50} = 5.51 µM). Combination treatment of chemotherapeutic agents and S07-2010 showed synergistic effects in drug-resistant cell lines.

1) He *et al*. (2022), *Discovery of Novel Aldo-Keto Reductase 1C3 Inhibitors as Chemotherapeutic Potentiators for Cancer Drug Resistance*; ACS Med. Chem. Lett. **13** 1286

PHYSICAL DATA

Molecular Weight:	371.46
Molecular Formula:	$C_{19}H_{21}N_3O_3S$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (50 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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