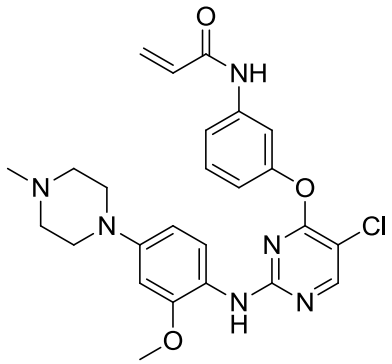
WZ4002



Chemical Formula: $C_{25}H_{27}ClN_6O_3$
Molecular Weight: 494.97

Category	Parameter	Description
Compound	Name	WZ4002
	Citation	*Nature* **2009**, *462,* 1070-4
	Chemical descriptors	ClC1=C(OC2=CC(NC(C=C)=O)=CC=C2)N=C(NC3=CC=C(N4CCN(C)CC4)C=C3OC)N=C1
	Chemical name	N-(3-((5-chloro-2-((2-methoxy-4-(4-methylpiperazin-1-yl)phenyl)amino)pyrimidin-4-yl)oxy)phenyl)acrylamide
	Entries in chemical databases	**CID** 44607530
	Availability	Axon Medchem http://www.axonmedchem.com/product/1506wz4002.
In vitro profiling	Target (potency)	EGFR L858R/T790M (IC_{50} 47 nM in cellular assay) EGFR del/T790M ((IC_{50} 14 nM in cellular assay)
	Target (potency)	BTK (kd 100 nM in Ambit binding assay) FAK (kd 100 nM in Ambit binding assay)
	Selectivity	
	Potential reactivity	Cyeteine reactive
	SAR	
	Mechanism of inhibition	Irreversible
	Structure of target-probe complex	3IKA
Cellular profiling	Validation of cellular target	WZ4002 dose-dependently inhibited EGFR amplified H1975 and PC9 GR cells and BaF3 cells at 100 nM. WZ4002 dose-dependently inhibited transgenic mice harboring EGFR L858R/T790KM and EGFR del/T790M
	Validation of cellular specificity	
Pharmacodynamics		WZ4002 inhibited EGFR phosphorylation and induced significant tumor regression in murine model of EGFR T790M
Pharmacokinetics		T1/2 = 2.5 h CL = 17.1 ml/min/Kg Vss=1.54 L/Kg F= 24.5%

Synthetic scheme