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Structural-based design, synthesis, and antitumor activity of novel alloxazine analogues with potential selective kinase inhibition

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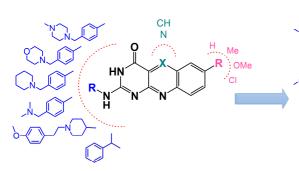
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The structural features manipulated to improve PTKI selectivity and antitumor activity of of alloxazines and 5-deazaalloxazines

0				
Ĭ	IC50 value (μM)			
matinib tail HŅ	Compound	MCF-7	A2780	HCT116
\sim	9a	0.53	0.32	0.82
	9b	0.62	0.54	0.72
9a: X= CH; R = Me	10b	0.04	0.05	0.05
9b: X=CH; R = CI	10f	0.16	0.20	0.17
10b :X=N; R = OMe				$\overline{}$

Apoptosis assay (MCF-7)

10f: early apoptosis (5μΜ: 100.0%),(10μΜ: 130.0%), All compounds: late apoptosis (1-10μM: 28-1180%)



PTK profiling (% inhibition) = -33% to -44% (Abl-1) = -34% (CDK1/CyclinA1) = -42 to -59% (FAK)

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