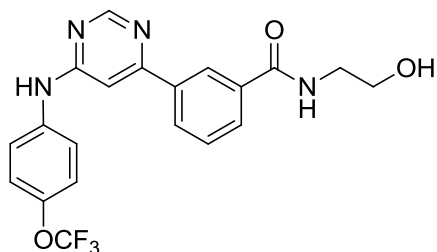


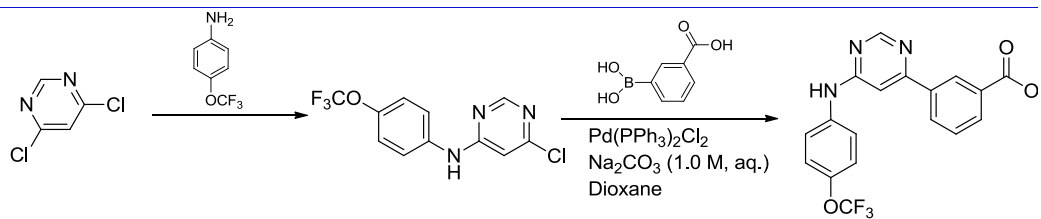
## Bcr-Abl allosteric inhibitor (GNF-5)



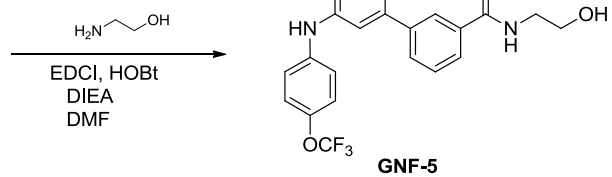
Chemical Formula:  $C_{20}H_{17}F_3N_4O_3$

Molecular Weight: 418.37

Category	Parameter	Description
Compound	Name	GNF-5
	Citation	<i>Nature</i> . <b>2010</b> , 463, 501-507. <i>J. Med. Chem.</i> <b>2010</b> , 53, 6934-6946.
	Chemical descriptors	<chem>O=C(NCCO)C1=CC(G2=CC(NC3=CC=C(OC(F)(F)F)C=C3)=NC=N2)=CC=C1</chem>
	Chemical name	N-(2-hydroxyethyl)-3-(6-((4-(trifluoromethoxy)phenyl)amino)pyrimidin-4-yl)benzamide
	Availability	EMD4Bioscience <a href="http://www.emdchemicals.com/life-science-research/bcr-abl-inhibitor-iii-gnf-5/EMD_BIO-197224/p_u3qb.s1Lz4oAAAEW0WEfVhTm">http://www.emdchemicals.com/life-science-research/bcr-abl-inhibitor-iii-gnf-5/EMD_BIO-197224/p_u3qb.s1Lz4oAAAEW0WEfVhTm</a>
<i>In vitro</i> profiling	Primary target (potency)	GNF-5 inhibited wild type Abl kinase with $IC_{50}$ of $0.22 \pm 0.01 \mu M$ at ATP concentration of $20 \mu M$ , but not inhibit T315I and E505K mutant forms with $IC_{50} > 10 \mu M$ .
	Other target (potency)	
	Selectivity	
	Potential reactivity	None to our knowledge
	SAR	
	Mechanism of inhibition	Non ATP-competitive
	Structure of target-probe complex	3K5V
Cellular profiling	Validation of cellular target	GNF-5 inhibited Bcr-Abl-BaF3 cell growth with $EC_{50}$ of $0.43 \mu M$ . GNF-5 inhibited Bcr-Abl-E255K-BaF3 cell growth with $EC_{50}$ of $0.58 \mu M$ . GNF-5 didn't inhibit Bcr-Abl-T315I-BaF3 cell growth with $EC_{50} > 10 \mu M$ . GNF-5 didn't inhibit Bcr-Abl-E505K-BaF3 cell growth with $EC_{50} > 10 \mu M$ . GNF-5 didn't inhibit parental BaF3 cell growth with $EC_{50} > 10 \mu M$ .
	Validation of cellular specificity	
Pharmacodynamics		
Pharmacokinetics	$T_{1/2} = 2.30 \pm 0.10$ hours, $V_{ss} = 9.18 \pm 1.82$ (L/Kg), $F = 44.8 \pm 7.54$ %	



Synthetic scheme



**GNF-5**

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