

Catalog # 10-1569

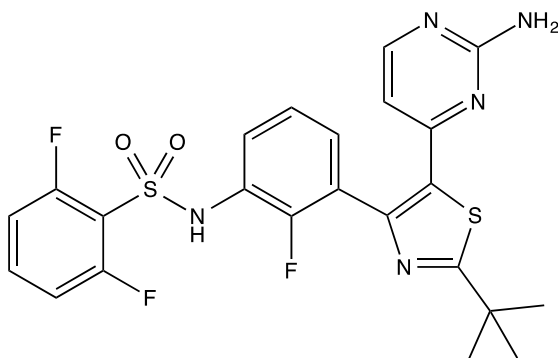
Dabrafenib

CAS# 1195765-45-7

N-[3-[5-(2-amino-4-pyrimidinyl)-2-(1,1-dimethylethyl)-4-thiazoly]-2-fluorophenyl]-2,6-difluoro-benzenesulfonamide;

GSK2118436

Lot # X106923



Dabrafenib is a selective inhibitor of mutant B-Raf^{V600E} (IC₅₀ = 0.8 nM), with 4- and 6-fold reduced potency against wild type B-Raf and c-Raf (IC₅₀ = 3.2 and 5 nM, respectively).¹ Has been in clinical trials in patients with B-Raf^{V600E} metastatic melanoma and other solid tumors. Endoplasmic reticulum stress and autophagy are induced in melanoma cells after treatment with dabrafenib and protect cells from dabrafenib toxicity.² Induces epithelial differentiation in BRAF-mutant colorectal cancer cells.³

- 1) Huang *et al.* (2013), *B-Raf and the inhibitors: from bench to bedside*; J.Hematol.Oncol. **6** 1
- 2) Ji *et al.* (2016), *Endoplasmic reticulum stress-induced autophagy determines the susceptibility of melanoma cells to dabrafenib*; Drugs Des. Dev. Ther., **10** 2491
- 3) Herr *et al.* (2015), *B-Raf inhibitors induce epithelial differentiation in BRAF-mutant colorectal cancer cells*; Cancer Res., **75** 216

PHYSICAL DATA

Molecular Weight:	519.56
Molecular Formula:	C ₂₃ H ₂₀ F ₃ N ₅ O ₂ S ₂
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 30 mg/ml); Ethanol (1mg/mL with warming)
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 or ethanol may be stored at -20°C for up to 3 months.

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Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

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