

DATA SHEET

Product Name: Dabrafenib

Catalog #: CV-1011

Alt: CAS # 1195765-45-7; N-[3-[5-(2-amino-4-pyrimidinyl)-2-(1,1-dimethylethyl)-4-thiazolyl]-2-fluorophenyl]-2,6-difluoro-benzenesulfonamide; GSK2118436

Molecular Mass: 519.6

Analysis: >98% (TLC); NMR (conforms)

Supplied As: Off-white powder

Resuspension: May be dissolved in DMSO (30 mg/ml); or ethanol (1 mg/ml, warm)

Storage: Store desiccated as supplied at -20°C for up to 1 year. Store solutions at -20°C for up to 3 months.

Description: 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 toxicity². Induces epithelial differentiation in BRAF-mutant colorectal cancer cells³.

References:

1. Huang, J., et al., (2013) J. Hematol. Oncol., 6 : 1
2. Ji, C., et al., (2016) Drug Des. Dev. Ther., 10 : 2491
3. Herr, R., et al., (2015) Cancer Res., 75 : 216

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