NEUROMICS

# Dabrafenib (GSK2118436) Data Sheet

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| **Catalog Number:** | MC11098 | **Product Type:** | Small Molecule |
| **Bio-Activity:** | B-Raf mutant inhibitor | **CAS #:** | 1195765-45-7 |
| **Research Categories:** | Cellular stress, cell death, cancer | **Chemical Name:** | N-[3-[5-(2-amino-4-pyrimidinyl)-2-(1,1-dimethylethyl)-4-thiazolyl]-2-fluorophenyl]-2,6-difluoro-benzenesulfonamide |
| **Solubility:** | Soluble in DMSO (up to 30 mg/ml), or in Ethanol (up to 1 mg/ml with warming). | **Molecular Formula:** | C23H20F3N5O2S |
| **Purity:** | > 98% | **Molecular Weight:** | 519.56 |
| **Format:** | Powder | **Ship Temp:** | Ambient |
| **Storage:** | -20°C | | |

## Application Notes

**Description/Data:**
Dabrafenib is a selective inhibitor of mutant B-RafV600E (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-RafV600E 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].

References:


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


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