



# Dabrafenib (GSK2118436) Data Sheet

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

## Application Notes

### Description/Data:

Dabrafenib is a selective inhibitor of mutant B-RafV600E (IC<sub>50</sub> = 0.8 nM), with 4- and 6-fold reduced potency against wild type B-Raf and c-Raf (IC<sub>50</sub> = 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

**FOR RESEARCH USE ONLY**

NEUROMICS' REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.-V2/08/2012