

#91942  
Store at  
-20°C**Dabrafenib (GSK2118436)**

5 mg



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

**Background**

Dabrafenib (GSK2118436) is a selective and potent B-Raf inhibitor. The compound inhibits mutant B-Raf<sup>V600E</sup> and B-Raf<sup>V600K</sup> with IC<sub>50</sub> values of 0.6 nM and 0.5 nM, respectively, and is less effective at inhibiting wild-type B-Raf and C-Raf (IC<sub>50</sub> = 3.2 nM and 5.0 nM, respectively) (1). Dabrafenib (GSK2118436) has also been shown to inhibit cell proliferation and ERK signaling in melanoma cell lines carrying the B-Raf<sup>V600R</sup> and B-Raf<sup>V600D</sup> mutations as compared to wild-type B-Raf (2). The specificity of this compound makes it a useful reagent when studying metastatic melanoma with B-Raf mutations (3).

This product has applications to SARS-CoV-2 research into the mechanisms of the Novel Coronavirus, which has caused the COVID-19 pandemic.

**Molecular Formula**

C<sub>23</sub>H<sub>20</sub>F<sub>3</sub>N<sub>5</sub>O<sub>2</sub>S<sub>2</sub>

**Molecular Weight**

519.6 g/mol

**Purity**

>98%

**CAS**

1195765-45-7

**Solubility**

Soluble in DMSO at 30 mg/ml or ethanol at 1 mg/ml with slight warming.

**Storage**

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

**Directions for Use**

Dabrafenib (GSK2118436) is supplied as a lyophilized powder. For a 10 mM stock, reconstitute 5 mg of powder in 962 µl of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

**Background References**

1. King, A.J. et al. (2013) *PLoS One* 8, e67583.
2. Gentilcore, G. et al. (2013) *BMC Cancer* 13, 17.
3. Huang, T. et al. (2013) *J Hematol Oncol* 6, 30.

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