

Store at  
-20°C

# Dabrafenib (GSK2118436)



#91942

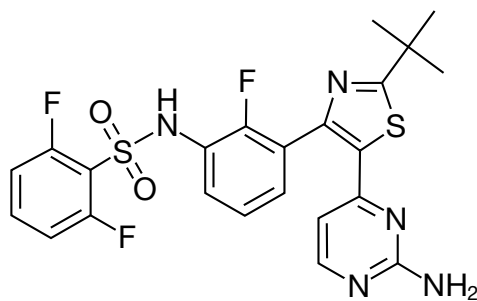
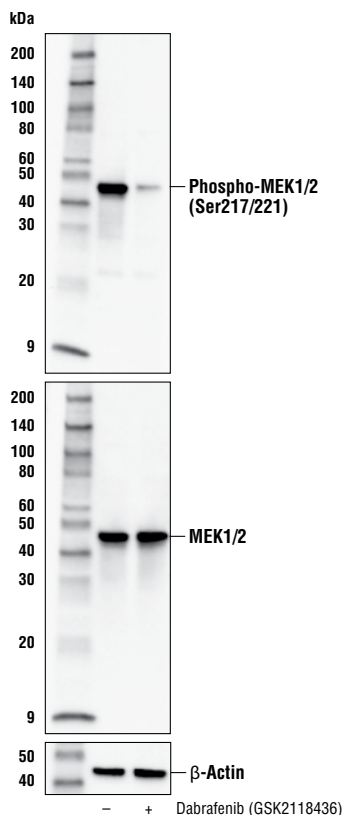
5 mg

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**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).

**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.

Western blot analysis of extracts from SK-MEL-28 cells, untreated (-) or treated with Dabrafenib (GSK2118436) (1  $\mu$ M, 24h; +), using Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb #9154 (upper), MEK1/2 (D1A5) Rabbit mAb #8727 (middle), or  $\beta$ -Actin (D6A8) Rabbit mAb #8457 (lower).

**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  $\mu$ l 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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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.