

# Dabrafenib

Catalog No: tcsc0692



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg



## Specifications

**CAS No:**

1195765-45-7

**Formula:**

$C_{23}H_{20}F_3N_5O_2S_2$

**Pathway:**

MAPK/ERK Pathway

**Target:**

Raf

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 33$  mg/mL (63.52 mM)

**Alternative Names:**

GSK2118436A;GSK2118436

### Observed Molecular Weight:

519.56

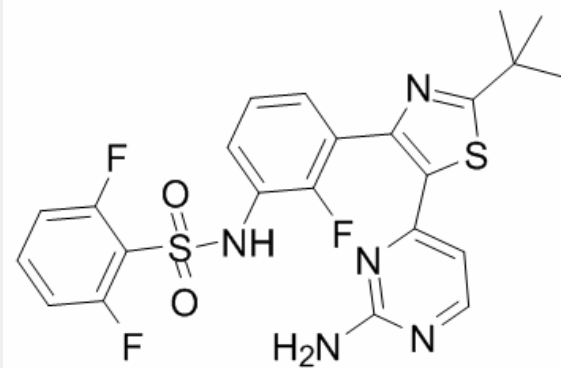
### Product Description

Dabrafenib is an ATP-competitive inhibitor of **BRAF** with **IC<sub>50</sub>**s of 5 nM and 0.6 nM for CRAF and BRAF<sup>V600E</sup>, respectively.

IC50 & Target: IC50: 0.6 nM (BRAF<sup>V600E</sup>), 5 nM (CRAF)<sup>[4]</sup>

**In Vitro:** Dabrafenib (GSK2118436, 1 μM) with 0.01 μM GSK1120212 inhibits more than 90% of cell growth in the NRAS mutant clones. GSK2118436 is sufficient to reduce S6P phosphorylation in A375<sup>[1]</sup>. Dabrafenib suppresses the PolyP-mediated vascular barrier permeability, upregulation of inflammatory biomarkers, adhesion/migration of leukocytes, and activation and/or production of nuclear factor-κB, tumor necrosis factor-α, and interleukin-6<sup>[2]</sup>. Dabrafenib inhibits the release of HMGB1 and downregulates HMGB1-dependent inflammatory responses by enhancing the expressions of cell adhesion molecules (CAMs) in human endothelial cells<sup>[3]</sup>.

**In Vivo:** Dabrafenib-treated females have mostly immature reproductive tracts with no evidence of ovulation, similar to age-matched controls; however, DAB-treated females have keratinized and histologically open vaginas<sup>[5]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!