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**Product Data Sheet**

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Product Name: SKLB1002

Cat. No.: GC13738

**Chemical Properties**

Cas. No. 1225451-84-2

Chemical Name 2-(6,7-dimethoxyquinazolin-4-yl)sulfanyl-5-methyl-1,3,4-thiadiazole

SMILES CC1=NN=C(S1)SC2=NC=NC3=CC(=C(C=C32)OC)OCFormula  $C_{13}H_{12}N_4O_2S_2$  M.Wt 320.39Solubility  $\geq 8\text{mg/mL}$  in DMSO Storage Store at  $-20^\circ\text{C}$ General tips For obtaining a higher solubility, please warm the tube at  $37^\circ\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^\circ\text{C}$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

SKLB1002 is a potent inhibitor of VEGF receptor 2 with  $IC_{50}$  value of 32 nM [1].

VEGF receptor 2 (VEGFR2) is a major receptor for vascular endothelial growth factor (VEGF) and plays an important role in angiogenesis and VEGF-stimulated proliferation, migration, and sprouting of cultured endothelial cells [1].

SKLB1002 is a potent VEGFR2 inhibitor. In human umbilical vein endothelial cells (HUVEC), SKLB1002 significantly inhibited VEGF-induced HUVEC proliferation with  $IC_{50}$  value of 11.9  $\mu\text{M}$ . Also, SKLB1002 inhibited HUVEC migration, invasion and tube formation in a dose-dependent way. SKLB1002 (10  $\mu\text{M}$ ) significantly inhibited VEGF-induced phosphorylation of VEGFR2, ERK, Src and FAK [1].

In zebrafish embryos, SKLB1002 (2.5  $\mu\text{M}$ ) significantly inhibited the growth of intersegmental vessels. In mice bearing SW620 or HepG2 xenografts, SKLB1002 (100 mg/kg) significantly inhibited tumor volume and inhibited tumor growth by 60%. Also,

**Caution: Product has not been fully validated for medical applications. For research use only.**

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SKLB1002 reduced the microvessel density [1]. In mice with 4T1 tumor, SKLB1002 significantly reduced the tumor vessel density [2].

### References:

[1]. Zhang S, Cao Z, Tian H, et al. SKLB1002, a novel potent inhibitor of VEGF receptor 2 signaling, inhibits angiogenesis and tumor growth in vivo. Clin Cancer Res, 2011, 17(13): 4439-4450.

[2]. Shen G, Li Y, Du T, et al. SKLB1002, a novel inhibitor of VEGF receptor 2 signaling, induces vascular normalization to improve systemically administered chemotherapy efficacy. Neoplasma, 2012, 59(5): 486-493.

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