

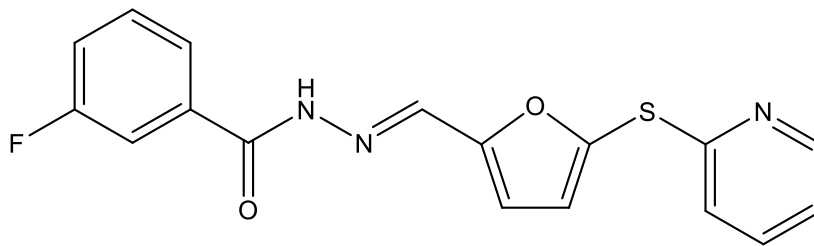
Catalog # 10-5332

MLS-544460

CAS# 352336-36-8

3-Fluoro-N-((E)-(5-pyridin-2-ylsulfanylfuran-2-yl)methylideneamino)benzamide; MLS000544460

Lot # S107174



MLS-544460 is an allosteric inhibitor of the Eya2 tyrosine phosphatase ($IC_{50}=4.1 \mu M$)¹⁻² which is ineffective against other tyrosine phosphatases including Eya3 and PTP1B. Treatment of patient-derived glioma stem cells induced loss of bipolar spindle formation along with G2/M cell cycle arrest. GSC proliferation was inhibited at concentrations 4 to 10-fold lower than normal brain cells.³ Treatment of Axolotls following amputation impairs limb regeneration indicating a role for Eya2 in vertebrate regeneration.⁴

References/Citations:

- 1) Kreuger *et al.* (2014), *Allosteric inhibitors of the Eya2 phosphatase are selective and inhibit Eya2-mediated cell migration*; J. Biol. Chem. **289** 16349
- 2) Kreuger *et al.* (2013), *Identification of a selective small-molecule inhibitor series targeting the eyes absent 2 (Eya2) phosphatase activity*; J. Biomol. Screen. **18** 85
- 3) Zhang *et al.* (2021), *Targeting EYA2 tyrosine phosphatase activity in glioblastoma stem cells induces mitotic catastrophe*; J. Exp. Med. **218** e20202669
- 4) Sousounis *et al.* (2020), *Eya2 promotes cell cycle progression by regulating DNA damage response during vertebrate limb regeneration*; Elife **289** e51217

PHYSICAL DATA

Molecular Weight:	341.36
Molecular Formula:	C ₁₇ H ₁₂ FN ₃ O ₂ S
Purity:	>98% (TLC)
	NMR: (Conforms)
Solubility:	DMSO (40 mg/mL)
Physical Description:	Cream/Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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