



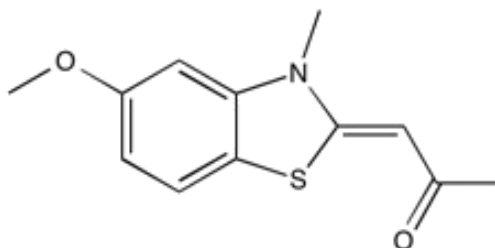
Catalog # 10-1292

TG003

719277-26-6

(Z)-1-(3-Ethyl-5-methoxy-2,3-dihydrobenzothiazol-2-ylidene)propan-2-one

Lot # X104231



Potent, ATP-competitive inhibitor of Clk-family kinases (IC_{50} s = 15, 20 and 200 nM for mClk4, 1 and 2 respectively and $>10\text{ }\mu\text{M}$ for mClk3)¹. Also inhibits DYRK1A/B (IC_{50} s = 24 and 34 nM respectively)². Suppresses serine/arginine-rich protein phosphorylation, dissociation of nuclear speckles and Clk1/Sty-dependent alternative splicing in mammalian cells¹. Affects the regulation of alternative splicing by phosphorylation of SR protein both *in vitro* and *in vivo*. Promotes skipping of exon 31 in the endogenous dystrophin gene³. Increases levels of Clk1/4 mature mRNAs by promoting splicing of the intron-retaining RNAs⁴.

- 1) Muraki *et al.* (2004), *Manipulation of alternative splicing by a newly developed inhibitor of Clks*; J. Biol. Chem., **279** 24246
- 2) Foucourt *et al.* (2014), *Design and synthesis of thiazolo[5,4-f]quinazolines as DYRK1A inhibitors, part II*; Molecules, **19** 15411
- 3) Nishida *et al.* (2011), *Chemical treatment enhances skipping of a mutated exon in the dystrophin gene*; Nat. Commun., **2** 308
- 4) Ninomiya *et al.* (2011), *Stress-responsive maturation of Clk1/4 pre-mRNAs promotes phosphorylation of SR splicing factor*; J. Cell Biol., **195** 27

PHYSICAL DATA

Molecular Weight:	249.33
Molecular Formula:	C ₁₃ H ₁₅ NO ₂ S
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 20 mg/ml), Ethanol (up to 15 mg/ml)
Physical Description:	Light yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 2 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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