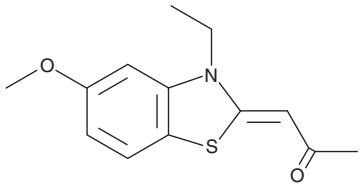
PRODUCT INFORMATION

TG003

Item No. 10398

CAS Registry No.:	300801-52-9
Formal Name:	1-(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)-2-propanone
MF:	$C_{13}H_{15}NO_2S$
FW:	249.3
Purity:	≥95%
Stability:	≥2 years at -20°C
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TG003 is supplied as a crystalline solid. A stock solution may be made by dissolving the TG003 in the solvent of choice, which should be purged with an inert gas. TG003 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TG003 in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

TG003 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TG003 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. TG003 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cdc2-like kinase (Clk), among a number of other kinases, phosphorylates serine/arginine-rich proteins which play a role in alternative splicing of pre-mRNA. The Clk family consists of four members, which include Clk1/Sty and Clk2-4. TG003 is a novel benzothiazole compound that demonstrates potent inhibition of Clk1/Sty and Clk4 with IC_{50} values of 20 and 15 nM, respectively.[1] TG003 exhibits considerably weaker inhibition of Clk2 and Clk3 (IC_{50} = 200 nM and >10 µM, respectively).[1] Through suppression of Clk-mediated phosphorylation, TG003 inhibits SF2/ASF-dependent splicing of β-globin pre-mRNA at 1 µM *in vitro*.[1] At 10 µM, TG003 rescues the embryonic defects induced by excessive Clk activity in *Xenopus*.[1]

Reference

1. Muraki, M., Ohkawara, B., Hosoya, T., *et al.* Manipulation of alternative splicing by a newly developed inhibitor of Clks. *J. Biol. Chem.* **279(23)**, 24246-24254 (2004).

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