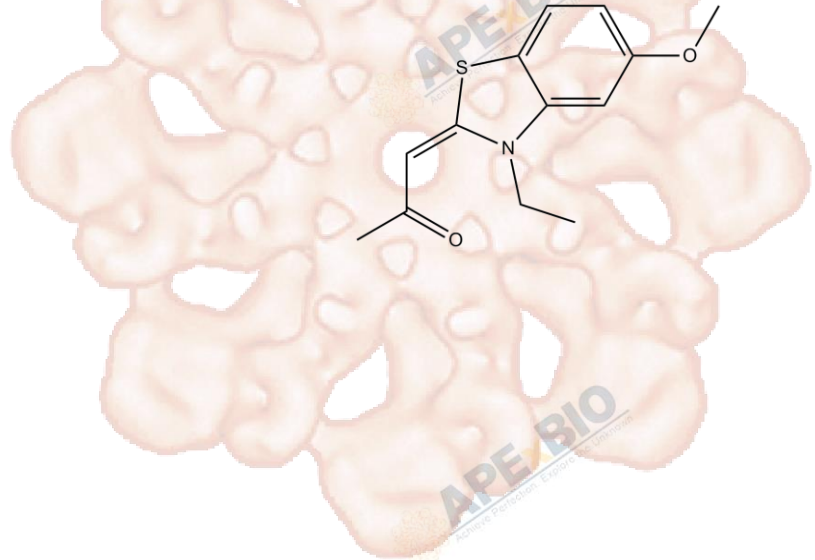


Product Data Sheet

TG003

Cat. No.: B1431
CAS No.: 300801-52-9
Formula: C₁₃H₁₅NO₂S
M.Wt: 249.33
Synonyms:
Target:
Pathway:
Storage: Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥12.45 mg/mL in DMSO; ≥14.67 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	4.0107 mL	20.0537 mL	40.1075 mL
	5 mM	0.8021 mL	4.0107 mL	8.0215 mL
	10 mM	0.4011 mL	2.0054 mL	4.0107 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Cdc2-like kinase (Clk) inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	HeLa cells
Preparation method:	Soluble in DMSO >12.5mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	2μl of 10 mM TG003 dissolved in Me ₂ SO, final concentration at 10μM, 3 days

	Applications:	TG003 had a potent inhibitory effect on the activity of Clk1(Cdc2 like kinase1). TG003 inhibited SF2(Splicing factor2) -dependent splicing of β -globin pre-mRNA in vitro by suppression of Clk-mediated phosphorylation. This drug also suppressed serine/arginine-rich protein phosphorylation, dissociation of nuclear speckles, and Clk1-dependent alternative splicing in cells.
In Vivo	Animal experiment	
	Animal models:	Seven-week-old, male Jcl:TCR mice
	Dosage form:	30mg/kg TG003 suspended in 5% DMSO, 5% Solutol, 9% Tween-80, and 81% saline, subcutaneously injection
	Applications:	TG003, an inhibitor of CLK1 in mice, could act as a splice-modifying compound for exon-skipping therapy. TG003 promoted skipping of dystrophin exon 31 with the c.4303G > T mutation.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Muraki M, Ohkawara B, et al. Manipulation of alternative splicing by a newly developed inhibitor of Clks. J Biol Chem, 2004, 279(23): 24246-24254.
- [2]. Sako Y1, Ninomiya K1, et al, Development of an orally available inhibitor of CLK1 for skipping a mutated dystrophin exon in Duchenne muscular dystrophy. Sci Rep. 2017 May 30;7:46126. doi: 10.1038/srep46126.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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