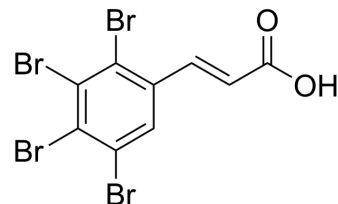


TBCA

Cat. No.:	HY-110052
CAS No.:	934358-00-6
Molecular Formula:	C ₉ H ₄ Br ₄ O ₂
Molecular Weight:	463.74
Target:	Casein Kinase
Pathway:	Cell Cycle/DNA Damage; Stem Cell/Wnt
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (215.64 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	2.1564 mL	10.7819 mL	21.5638 mL
		5 mM	0.4313 mL	2.1564 mL	4.3128 mL
	10 mM	0.2156 mL	1.0782 mL	2.1564 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (5.39 mM); Suspended solution; Need ultrasonic				
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.39 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	TBCA is a highly selective CK2 (casein kinase II) inhibitor with an IC ₅₀ of 110 nM and a K _i of 77 nM. TBCA shows selectivity for CK2 over CK1, DYRK1A and a panel of 27 other kinases ^{[1][2]} .	
IC ₅₀ & Target	CK2 110 nM (IC ₅₀)	CK2 77 nM (K _i)
In Vitro	<p>TBCA (0-100 μM; 24 hours) shows a drastic effect on Jurkat cells viability^[1].</p> <p>TBCA also inhibits CK2 double mutant (Val66 Ile174) with an IC₅₀ of 0.68 μM^[1].</p> <p>TBCA dose-dependently inhibits platelet aggregation and secretion induced by various agonists including 2-MeSADP, AYPGKF, SFLLRN, and CRP. TBCA also inhibits phosphorylation of PDK1, Akt, and GSK3β induced by AYPGKF^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	

Cell Viability Assay^[1]

Cell Line:	Jurkat cells
Concentration:	0-100 μ M
Incubation Time:	24 hours
Result:	The viability of Jurkat cells was reduced.

REFERENCES

[1]. Pagano MA, et al. Tetrabromocinnamic acid (TBCA) and related compounds represent a new class of specific protein kinase CK2 inhibitors. *Chembiochem.* 2007;8(1):129-139.

[2]. Ryu SY, Kim S. Evaluation of CK2 inhibitor (E)-3-(2,3,4,5-tetrabromophenyl)acrylic acid (TBCA) in regulation of platelet function. *Eur J Pharmacol.* 2013;720(1-3):391-400.

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

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