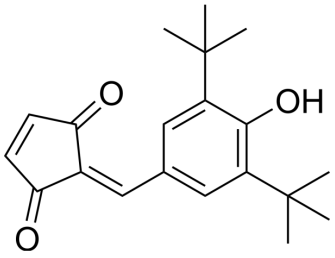
TX-1123

Cat. No.:	HY-121828
CAS No.:	157397-06-3
Molecular Formula:	$C_{20}H_{24}O_3$
Molecular Weight:	312.4
Target:	Src; CaMK; PKA; EGFR; PKC; COX
Pathway:	Protein Tyrosine Kinase/RTK; Neuronal Signaling; Stem Cell/Wnt; JAK/STAT Signaling; Epigenetics; TGF-beta/Smad; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

TX-1123 is a potent protein tyrosine kinase (PTK) inhibitor for Src, eEF2-K, and PKA, and EGFR-K/PKC. TX-1123 is a cyclo-oxygenase (COX) inhibitor with IC_{50} values of 1.16 μM and 15.7 μM for COX2 and COX1, respectively. TX-1123 has low mitochondrial toxicity. TX-1123 can be used in research of cancer[1][2].

IC_{50} & Target

COX-2	COX-1
1.16 nM (IC_{50})	15.7 μM (IC_{50})

In Vitro

TX-1123 (NIH3T3 cells) inhibits Src-K, eEF2-K, PKA, PKC, EGFR-k with IC_{50} values of 2.2, 3.2, 9.6, 320, and 320 μM, respectively[1].

TX-1123 (mitochondrial suspension) has a weaker mitochondrial toxicity and ATP-synthesis inhibitory activities with an IC_{50} value of 5 μM[1].

TX-1123 (0-1000 μM; 48 h) has antitumor activity with IC_{50} values of 3.66, 39, and 57 μM for HepG2, HCT116, and Rat hepatocytes, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	HepG2, HCT116, and Rat hepatocytes
Concentration:	0-1000 μM
Incubation Time:	48 hours
Result:	Inhibited tumor cell growth in a dose-dependent manner.

REFERENCES

[1]. Hori H, et, al. TX-1123: an antitumor 2-hydroxyarylidene-4-cyclopentene-1,3-dione as a protein tyrosine kinase inhibitor having low mitochondrial toxicity. Bioorg Med Chem. 2002 Oct;10(10):3257-65.

[2]. Ohkura K, et, al. Interactive Analysis of TX-1123 with Cyclo-oxygenase: Design of COX2 Selective TX Analogs. Anticancer Res. 2017 Jul;37(7):3849-3854.

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

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