COX-2/PI3K-IN-1

Cat. No.: HY-147911

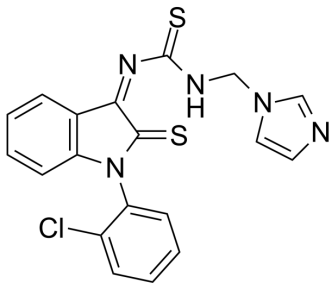
Molecular Formula: $C_{19}H_{14}ClN_5S_2$

Molecular Weight: 411.93

Target: PI3K; COX

Pathway: PI3K/Akt/mTOR; Immunology/Inflammation

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	COX-2/PI3K-IN-1 (compound 5d) is a potent PI3K inhibitor with IC_{50} value of 1.14 nM. COX-2/PI3K-IN-1 is a selective COX-2 inhibitor with K_i value of 3.24 nM. COX-2/PI3K-IN-1 has anti-inflammatory and anti-cancer properties.	
IC_{50} & Target	PI3K 1.14 nM (IC_{50})	COX-2 3.24 nM (Ki)
In Vitro	COX-2/PI3K-IN-1 (compound 5d) (50-500 μg/mL, 72 hours) exerts potent antitumor activities against Breast cancer (MCF-7) cells[1]. COX-2/PI3K-IN-1 (compound 5d) (10-150 μg/mL) has antioxidant properties with H_2O_2 scavenging activity equivalent to ascorbic acid and higher lysozyme inhibition(IC_{50}=3.98 nM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

Cell Cytotoxicity Assay[1]

Cell Line:	Breast cancer (MCF-7) cells and normal breast epithelial (MCF-10A) cells
Concentration:	50–500 μg/mL
Incubation Time:	72 hours
Result:	Caused 40 % cell death at 0.75 μM in MCF-7 cells.

REFERENCES

[1]. Rajesh Kumar M, et al. p-TSA.H2O mediated one-pot, multi-component synthesis of isatin derived imidazoles as dual-purpose drugs against inflammation and cancer. Bioorg Chem. 2020 Sep;102:104046.

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

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