COX-2/PI3K-IN-2

Cat. No.: HY-147912

CAS No.: 2459938-28-2

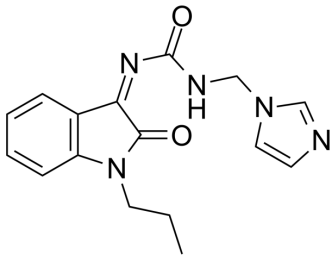
Molecular Formula: $C_{16}H_{17}N_5O_2$

Molecular Weight: 311.34

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-2 (compound 5f) is a potent PI3K inhibitor with IC_{50} value of 2.78 nM. COX-2/PI3K-IN-2 is a selective COX-2 inhibitor with K_i value of 3.02 nM. COX-2/PI3K-IN-2 shows anti-inflammatory and anti-cancer properties[1].

IC_{50} & Target

PI3K	COX-2
2.78 nM (IC_{50})	3.02 nM (Ki)

In Vitro

COX-2/PI3K-IN-2 (compound 5f) (50-500 μg/mL, 72 hours) exerts potent antitumor activities against Breast cancer (MCF-7) cells[1].

COX-2/PI3K-IN-2 (compound 5f) (10-150 μg/mL) has antioxidant properties with H_2O_2 scavenging activity equivalent to ascorbic acid and higher lysozyme inhibition (IC $_{50}$=3.25 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 1.65 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.

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