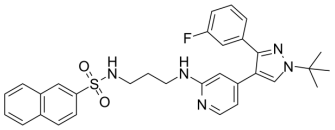
COX-2-IN-10

Cat. No.:	HY-115976
Molecular Formula:	$C_{31}H_{32}FN_5O_2S$
Molecular Weight:	557.68
Target:	COX
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	COX-2-IN-10 is a potent COX-2 inhibitor. COX-2-IN-10 inhibits the production of PGE_2 in concentration dependent manner (IC_{50}=2.54 μM). COX-2-IN-10 inhibits the expression of iNOS and COX-2 on mRNA and protein level . COX-2-IN-10 inhibits the production of IL-6, TNF-α and IL-1β[1].
IC_{50} & Target	COX-2

In Vitro

COX-2-IN-10 (compound 9k) (10 μM, 24 h) exhibits high safety and did not show any significant cytotoxicity over LPS-Induced RAW264.7 macrophage cells[1].

COX-2-IN-10 (0.4, 2, 10 μM) inhibits the production of PGE_2 in concentration dependent manner in RAW264.7 macrophage cells (IC_{50}=2.54 μM)[1].

COX-2-IN-10 (2.5, 5, 10 μM) significantly inhibits the mRNA expression of iNOS and COX-2 at 10 μM[1].

COX-2-IN-10 (2.5, 5, 10 μM) significantly inhibits iNOS and COX-2 protein level starting from 10 μM concentration[1].

COX-2-IN-10 (2.5, 5, 10 μM; 1 h) inhibits the production of IL-6, TNF-α and IL-1β[1].

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

Cell Viability Assay[1]

Cell Line:	RAW264.7 macrophage cells
Concentration:	10 μM
Incubation Time:	24 h
Result:	Exhibited high safety and did not show any significant cytotoxicity over LPS-Induced RAW264.7 macrophage cells.

RT-PCR[1]

Cell Line:	RAW264.7 macrophage cells
Concentration:	2.5, 5, 10 μM
Incubation Time:	
Result:	Inhibits the mRNA expression of iNOS and COX-2 at 10 μM.

Western Blot Analysis[1]

Cell Line:	RAW264.7 macrophage cells
Concentration:	2.5, 5, 10 μM
Incubation Time:	
Result:	Significantly inhibited iNOS and COX-2 protein level starting from 10 μM concentration.

REFERENCES

[1]. Karim I. M, et al. Design, synthesis, in vitro determination and molecular docking studies of 4-(1-(tert-butyl)-3-phenyl-1H-pyrazol-4-yl) pyridine derivatives with terminal sulfonamide derivatives in LPS-induced RAW264.7 macrophage cells. Medicinal Chemistry Research, 2021, 30: 1925-1942.

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