Oxaprozin potassium

Cat. No.: HY-B0808A

CAS No.: 174064-08-5

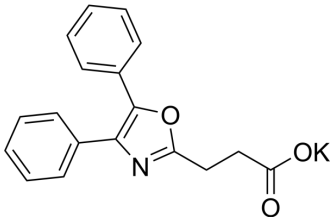
Molecular Formula: $C_{18}H_{14}KNO_3$

Molecular Weight: 331.41

Target: COX; NF-κB; Akt; IKK; Apoptosis

Pathway: Immunology/Inflammation; NF-κB; PI3K/Akt/mTOR; Apoptosis

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



BIOLOGICAL ACTIVITY

Description	Oxaprozin potassium is an orally active and potent COX inhibitor, with IC_{50} values of 2.2 μM for human platelet COX-1 and and 36 μM for IL-1-stimulated human synovial cell COX-2, respectively. Oxaprozin potassium also inhibits the activation of NF-κB. Oxaprozin potassium induces cell apoptosis. Oxaprozin potassium shows anti-inflammatory activity. Oxaprozin potassium-mediated inhibition of the Akt/IKK/NF-κB pathway contributes to its anti-inflammatory properties[1][2].			
IC_{50} & Target	COX-1 2.2 μM (IC_{50})	COX-2 36 μM (IC_{50})	NF-κB	IKK
In Vitro	Oxaprozin (0-100 μM) induces apoptosis in a dose-dependent manner. Oxaprozin increases caspase-3 activity in the activated but not in the resting condition. NF-κB activation is inhibited by Oxaprozin (50 μM). Oxaprozin inhibits activation of the IKK system induced by the reagent IκBα[1]. Oxaprozin (100 μM) induces the strongest proapoptotic effect and significantly increases CD40L-treated monocyte apoptosis. Oxaprozin treatment inhibits CD40L-induced Akt and NF-κB (p65) phosphorylation[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

REFERENCES

[1]. Ottonello L, et al. Delayed apoptosis of human monocytes exposed to immune complexes is reversed byoxaprozin: role of the Akt/IkappaB kinase/nuclear factor kappaB pathway. Br J Pharmacol. 2009 May;157(2):294-306.

[2]. Montecucco F, et al. Oxaprozin-induced apoptosis on CD40 ligand-treated human primary monocytes is associated with the modulation of defined intracellular pathways. J Biomed Biotechnol. 2009;2009:478785.

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