Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Amlexanox

Catalog No: tcsc2949

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
68302-57-8

Formula:
$C_{16}H_{14}N_2O_4$

Pathway:
NF-κB

Target:
IKK

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 36 mg/mL (120.69 mM)

Alternative Names:
AA673;Amoxanox;CHX3673

Observed Molecular Weight:
298.29

Product Description

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AmLexanox is a specific inhibitor of **IKKε** and **TBK1**, and inhibits the IKKε and TBK1 activity determined by MBP phosphorylation with an $\mathbf{IC_{50}}$ of approximately 1-2 μM.

In Vitro: AmLexanox increases phosphorylation of TBK1 on Ser172 in 3T3-L1 adipocytes, and blocks polyinosinic:polycytidylic acid (poly I:C)-stimulated phosphorylation of interferon responsive factor-3 (IRF3), a presumed substrate of IKKε and TBK1[1]. AmLexanox potently inhibits the release of histamine and leukotrienes from mast cells, basophils and neutrophils in in vitro settings, possibly through increasing intracellular cyclic AMP content in inflammatory cells, a mem-brane-stabilising effect or inhibition of calcium influx [2]. In primary bone marrow derived macrophages (BMMs), amLexanox inhibits osteoclast formation and bone resorption. At the molecular level, amLexanox suppresses RANKL-induced activation of nuclear factor-κB (NF-κB), mitogen-activated protein kinase (MAPKs), c-Fos and NFATc1. AmLexanox decreases the expression of osteoclast-specific genes, including TRAP, MMP9, Cathepsin K and NFATc1[3].

In Vivo: AmLexanox (100 mg/kg, p.o.) prevents and reverses diet-induced or genetic obesity, and produces reversible weight loss in obese mice. AmLexanox also causes a significant decrease in adipose tissue mass in these mice, and an increase in circulating adiponectin. AmLexanox (25 mg/kg) significantly improves insulin sensitivity in mice with established DIO,and after four weeks of treatment, amLexanox produces marked improvements in glucose[1]. AmLexanox before the first application of the paste and at each has been shown to suppress both immediate and evaluation thereafter. A categorical scale is also delayed-type hypersensitivity reactions[2]. AmLexanox (20 mg/kg) enhances osteoblast differentiation of BMSCs. In ovariectomized (OVX) mouse model, amLexanox prevents OVX-induced bone loss by suppressing osteoclast activity[3].