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

KX1-004

Catalog No: tcsc3165

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
518058-84-9

Formula:
$C_{16}H_{13}FN_2O_2$

Pathway:
Protein Tyrosine Kinase/RTK

Target:
Src

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 42 mg/mL (147.74 mM)

Observed Molecular Weight:
284.29

Product Description

KX1-004 is a potent small molecule inhibitor of Src-PTK as a potential protective drug for NIHL.

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IC50 value:

Target: Src-PTK inhibitor

KX1-004, KX1-005 and KX1-174 as potential protective drugs for NIHL. Chinchillas were used as subjects. A 30 microl drop of one of the Src inhibitors was placed on the round window membrane of the anesthetized chinchilla; the vehicle (DMSO and buffered saline) alone was placed on the other ear. After the drug application, the middle ear was sutured and the subjects were exposed to noise. Hearing was measured before and several times after the noise exposure and treatment using evoked responses. At 20 days post-exposure, the animals were anesthetized their cochleae extracted and cochleograms were constructed. All three Src inhibitors provided protection from a 4 h, 4 kHz octave band noise at 106 dB. The most effective drug, KX1-004 was further evaluated by repeating the exposure with different doses, as well as, substituting an impulse noise exposure [1]. LNAC was delivered intraperitoneally at a dose of 325 mg/kg while KX1-004 was administered subcutaneously at a dose of 50 mg/kg. The noise exposure consisted of a 4 kHz octave band of noise at 100 dB SPL for 6 hours/day for 4 days. The drugs were administered once each day, 30 minutes prior to the onset of the noise exposure. The animals\' hearing was estimated using the evoked response records from surgically-implanted chronic electrodes in the inferior colliculi. Animals treated with LNAC and KX1-004 had from 10 to 20 dB less temporary threshold shift at day 1 and an average 10 dB less permanent threshold shift by day 21 when compared to control saline treated animals [2].