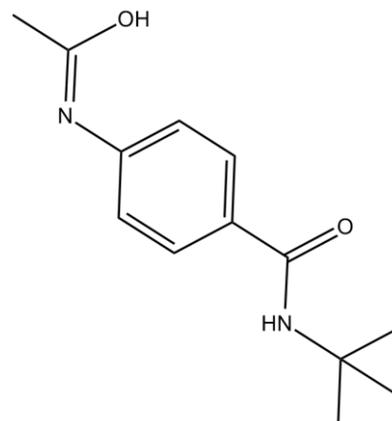


Product Data Sheet

Chemical Properties

Product Name:	CPI-1189
Cas No.:	183619-38-7
M.Wt:	234.29
Formula:	C ₁₃ H ₁₈ N ₂ O ₂



Chemical Name:	(Z)-N-(4-(tert-butylcarbamoyl)phenyl)acetimidic acid
Canonical SMILES:	<chem>C/C(O)=N/C1=CC=C(C=C1)C(=O)NC(C)(C)C</chem>
Solubility:	>23.4mg/ml in DMSO
Storage:	Store at -20°C
General tips:	For obtaining a higher solubility , please warm the tube at 37° C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20° C for several months.
Shopping Condition:	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request

Biological Activity

Targets :	Apoptosis
Pathways:	TNF- α

Description:

CPI-1189 is a proapoptotic cytokine tumor necrosis factor (TNF) alpha inhibitor. AIDS dementia complex is characterized by increased gliosis, apoptosis, and oxidative stress in the CNS, as well as a compromised blood-brain barrier. TNF-alpha has been reported to be elevated in AIDS dementia complex brains and may contribute to AIDS dementia complex. In vitro: CPI-1189 could potently inhibit p38-MAPK phosphorylation displaying protective action

against tumor necrosis factor-alpha (TNFalpha)-induced neurodegeneration. Moreover, in primary astrocytes treated with interleukin 1beta, CPI-1189 inhibited p38-MAPK phosphorylation at low concentrations [1].

In vivo: To model elevated TNF-alpha in AIDS dementia complex, TNF-alpha was infused into rats. Results showed that the co-administration of CPI-1189 prevented TNF-alpha induced apoptosis. Both TNF-alpha and CPI-1189 treatment could suppress glial fibrillary acidic protein staining. TNF-alpha alone did not affect the integrity of the blood-brain barrier significantly, but CPI-1189 treatment increased blood-brain barrier integrity [2].

Clinical trial: Previous clinical study showed that CPI-1189 was well tolerated, with 91% of CPI-1189-treated subjects and 76% of placebo-treated subjects completing the trial. Skin rash was equally found in placebo and drug-treated arms. One subject developed a cataract on CPI-1189. CD4 lymphocyte counts and plasma HIV viral load remained stable in all groups throughout the trial [3].

Reference:

[1] Hensley K,Robinson KA,Pye QN,Floyd RA,Cheng I,Garland WA,Irwin I. *CPI-1189 inhibits interleukin 1beta-induced p38-mitogen-activated protein kinase phosphorylation: an explanation for its neuroprotective properties Neurosci Lett.*2000 Mar 10;281(2-3):179-82.

[2] Bjugstad KB,Flitter WD,Garland WA,Philpot RM,Kirstein CL,Arendash GW. *CPI-1189 prevents apoptosis and reduces glial fibrillary acidic protein immunostaining in a TNF-alpha infusion model for AIDS dementia complex. J Neurovirol.*2000 Dec;6(6):478-91.

[3] Clifford DB,McArthur JC,Schifitto G,Kieburtz K,McDermott MP,Letendre S,Cohen BA,Marder K,Ellis RJ,Marra CM;Neurologic AIDS Research Consortium. *A randomized clinical trial of CPI-1189 for HIV-associated cognitive-motor impairment. Neurology.*2002 Nov 26;59(10):1568-73.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

ApexBio Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com