

# Product data sheet



MedKoo Cat#: 530215 Name: REN-1189 CAS#: 183619-38-7 Chemical Formula: C <sub>13</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub> Exact Mass: 234.1368 Molecular Weight: 234.30	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

## 1. Product description:

REN-1189, also known as CPI-1189 and REN 1654, is a TNF- $\alpha$  release inhibitor potentially for the treatment of sciatica and postherpetic neuralgia. It is used for HIV-associated neurotoxicity research; it is a treatment candidate for humans suffering from HIV-associated CNS disease.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	47	200.61
Ethanol	15	64.02

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.27 mL	21.34 mL	42.68 mL
5 mM	0.86 mL	4.27 mL	8.54 mL
10 mM	0.43 mL	2.13 mL	4.27 mL
50 mM	0.09 mL	0.43 mL	0.86 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

## 6. Recommended literature which reported protocols for in vitro and in vivo study

### In vitro study

- Li YJ, Zhan Y, Li C, Sun J, Yang C. CPI-1189 protects neuronal cells from oxygen glucose deprivation/re-oxygenation-induced oxidative injury and cell death. *Aging (Albany NY)*. 2021 Feb 17;13(5):6712-6723. doi: 10.18632/aging.202528. Epub 2021 Feb 17. PMID: 33621193; PMCID: PMC7993696.
- Hensley K, Robinson KA, Pye QN, Floyd RA, Cheng I, Garland WA, Irwin I. CPI-1189 inhibits interleukin 1 $\beta$ -induced p38-mitogen-activated protein kinase phosphorylation: an explanation for its neuroprotective properties? *Neurosci Lett*. 2000 Mar 10;281(2-3):179-82. doi: 10.1016/s0304-3940(00)00861-2. PMID: 10704772.

### In vivo study

- Pulliam L, Irwin I, Kusdra L, Rempel H, Flitter WD, Garland WA. CPI-1189 attenuates effects of suspected neurotoxins associated with AIDS dementia: a possible role for ERK activation. *Brain Res*. 2001 Mar 2;893(1-2):95-103. doi: 10.1016/s0006-8993(00)03293-5. PMID: 11222997.
- 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. doi: 10.3109/13550280009091948. PMID: 11175320.

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## 7. Bioactivity

### Biological target:

REN-1189 can inhibit the activation of p38 mitogen activated protein kinase phosphorylation, and play a neuroprotective role.

### In vitro activity

REN-1189 alleviated oxygen glucose deprivation/re-oxygenation (OGDR)-induced programmed necrosis by inhibiting mitochondrial p53-cyclophilin D-adenine nucleotide translocase 1 association, mitochondrial depolarization, and lactate dehydrogenase release to the medium. REN-1189 potently inhibited OGDR-induced oxidative injury and neuronal cell death.

Reference: Aging (Albany NY). 2021 Feb 17;13(5):6712-6723. <https://pubmed.ncbi.nlm.nih.gov/33621193/>

### In vivo activity

In this paper, REN-1189 is shown to mitigate apoptosis induced by TNF $\alpha$ , gp120, and necrosis induced by quinolinic acid. REN-1189 mitigates the cell death produced by supernatants from cultured macrophages obtained from patients with AIDS dementia. These findings may have implications for other neurological diseases where apoptotic cell death contributes to neurodegeneration.

Reference: Brain Res. 2001 Mar 2;893(1-2):95-103. <https://pubmed.ncbi.nlm.nih.gov/11222997/>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*