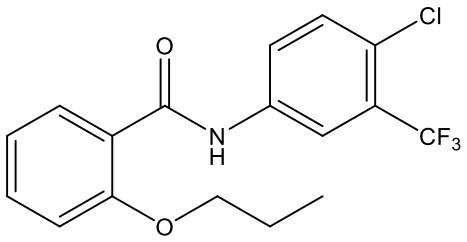
Catalog # 10-5669

TTK21

CAS# 709676-56-2

N-[4-Chloro-3-(trifluoromethyl)phenyl]-2-propoxybenzamide

Lot # X109917



A novel activator of CBP/p300 acetyl transferases.[1] When TTK21 is conjugated to glucose-based carbon nanospheres (CSP) it is nontoxic and is BBB permeable. CSP-TTK21, upon intraperitoneal administration to mice, acetylated histones in the hippocampus and frontal cortex and increased BDNF levels.[1] It reinstated plasticity and memory in a tauopathy mouse model[2], ameliorated Aβ-impaired long term potentiation[3] and promoted axon growth, sprouting and synaptic plasticity in chronic experimental spinal cord injury[4].

1) Chatterjee *et al.* (2013) *A novel activator of CBP/p300 acetyltransferases promotes neurogenesis and extends memory duration in adult mice;* J. Neurosci. **33** 10698
2) Chatterjee *et al.* (2018) *Reinstating plasticity and memory in a tauopathy mouse model with an acetyltransferase activator;* EMBO Mol. Med. **103** e8587
3) Singh *et al.* (2022) *Glucose derived carbon nanosphere (CSP) conjugated TTK21, an activator of the histone acetyltransferases CBP/p300, ameliorates amyloid-beta 1-42 induced deficits in plasticity and associativity in hippocampal CA1 pyramidal neurons;* Aging Cell **21** e13675
4) Muller *et al.* (2022) *CBP/p300 activation promotes axon growth, sprouting, and synaptic plasticity in chronic experimental spinal cord injury with severe disability;* PLoS Biol. **20** e3001310

PHYSICAL DATA

Molecular Weight:	357.76
Molecular Formula:	$C_{17}H_{15}ClF_3NO_2$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (50 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20ºC for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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