

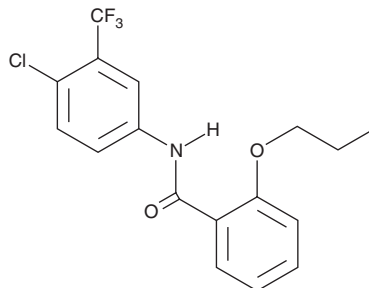
PRODUCT INFORMATION



TTK21

Item No. 21959

CAS Registry No.: 709676-56-2
Formal Name: N-[4-chloro-3-(trifluoromethyl)phenyl]-2-propoxy-benzamide
MF: C₁₇H₁₅ClF₃NO₂
FW: 357.8
Purity: ≥98%
UV/Vis.: λ_{max}: 208, 271 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TTK21 is supplied as a crystalline solid. A stock solution may be made by dissolving the TTK21 in the solvent of choice, which should be purged with an inert gas. TTK21 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of TTK21 in these solvents is approximately 2, 5, and 3 mg/ml, respectively.

TTK21 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TTK21 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TTK21 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TTK21 is an activator of CBP/p300 histone acetyltransferase activity.¹ It activates CBP/p300 histone acetyltransferase activity in a concentration-dependent manner with a maximal effect at a concentration of 275 μM, inducing acetylation of histones H3 and H4 *in vitro* but not H2B and H2A. TTK21, conjugated to glucose-based carbon nanospheres (CSP), crosses the blood-brain barrier and increases histone acetylation of H2B and H3 as well as H4K12 in mouse frontal cortex and H2B and H3 in the dorsal hippocampus and brainstem. CSP-TTK21 (20 mg/kg) also induces differentiation and maturation of neuronal progenitors in the subgranular zone of the dentate gyrus in adult mice and increases memory duration in the Morris water maze with mice spending more time in the platform quadrant compared with untreated mice up to 16 days after learning.

Reference

1. Chatterjee, S., Mizar, P., Cassel, R., *et al.* A novel activator of CBP/p300 acetyltransferases promotes neurogenesis and extends memory duration in adult mice. *J. Neurosci.* **33**(26), 10698-10712 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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