

# GTS-21 (dihydrochloride)

Catalog No: tcsc5486



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

156223-05-1

**Formula:**

$C_{19}H_{22}Cl_2N_2O_2$

**Pathway:**

Neuronal Signaling;Membrane Transporter/Ion Channel

**Target:**

nAChR;nAChR

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 16.5 mg/mL (43.27 mM; Need ultrasonic and warming)

**Alternative Names:**

DMXB-A;DMBX-anabaseine

**Observed Molecular Weight:**

381.3

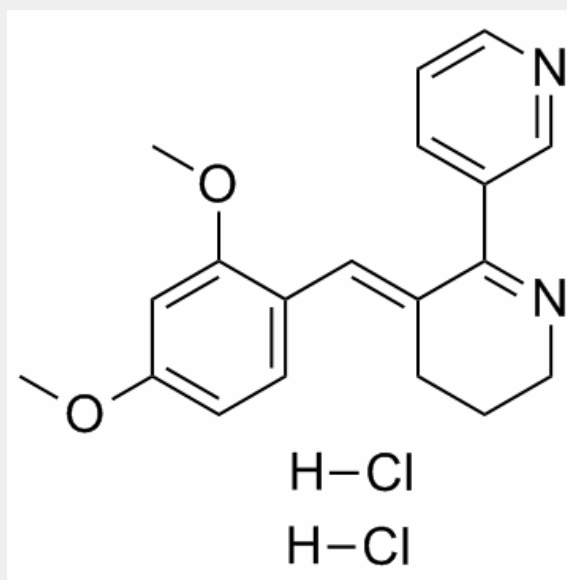
## Product Description

GTS-21 dihydrochloride is a selective  $\alpha 7$  nicotinic acetylcholine receptor agonist, has recently been established as a promising treatment for inflammation.

Target: nAChR

in vitro: GTS-21 is one of the most potent  $\alpha 7$ nAChR agonists, has been reported to attenuate pro-inflammatory cytokine production, improve outcomes in sepsis models, pancreatitis, and ischemia-reperfusion injury, and inhibit the production of endotoxin-induced TNF in lung tissue. In addition, recent studies have demonstrated that GTS-21 inhibits the activities of endothelial cells and monocyte macrophages, as well as the secretion of pro-inflammatory cytokines in peripheral blood samples, by regulating the JAK2-STAT3 pathway. [1]

in vivo: In septic animals, GTS-21 significantly ameliorated GI motility, lowered systemic and colonic levels of IL-6, decreased colonic permeability, and decreased the number of positive cultures obtained from blood and mesenteric lymph nodes. Splenectomy prevented animals from developing sepsis-induced ileus. Chrna7 mice displayed a more severe septic phenotype, whereas GTS-21 remarkably was also beneficial in these animals. [2]



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!