



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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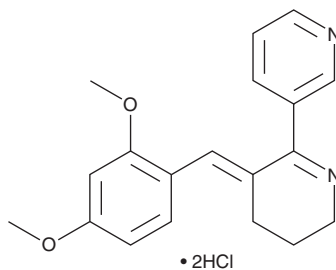
# PRODUCT INFORMATION



## GTS-21 (hydrochloride)

Item No. 21570

**CAS Registry No.:** 156223-05-1  
**Formal Name:** (3E)-3-[(2,4-dimethoxyphenyl)methylene]-3,4,5,6-tetrahydro-2,3'-bipyridine, dihydrochloride  
**Synonym:** DMXB-A  
**MF:** C<sub>19</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub> • 2HCl  
**FW:** 381.3  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

GTS-21 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the GTS-21 (hydrochloride) in the solvent of choice. GTS-21 (hydrochloride) is soluble in the organic solvent DMSO, which should be purged with an inert gas. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

GTS-21 is an agonist of  $\alpha 7$ -containing nicotinic acetylcholine receptors (nAChRs) that, at a concentration of 100  $\mu$ M, activates human  $\alpha 7$ -containing nAChRs expressed in *Xenopus* oocytes to 60% of the levels generated by endogenous ligand acetylcholine.<sup>1</sup> It is selective for  $\alpha 7$ -containing nAChRs, having no activity at  $\alpha 2$ -,  $\alpha 3$ -, and  $\alpha 4$ -containing nAChRs at a concentration of 100  $\mu$ M. GTS-21 stimulates dopamine release from rat striatal slices ( $EC_{50} = 10 \mu$ M).<sup>2</sup> *In vivo*, GTS-21 decreases delay in the delayed matching-to-sample task in monkeys. It also suppresses amnesia and neuronal cell death in a gerbil model of ischemia-reperfusion injury.<sup>3</sup>

### References

1. Meyer, E.M., Tay, E.T., Papke, R.L., *et al.* 3-[2,4-Dimethoxybenzylidene]anabaseine (DMXB) selectively activates rat  $\alpha 7$  receptors and improves memory-related behaviors in a mecamylamine-sensitive manner. *Brain Res.* **768(1-2)**, 49-56 (1997).
2. Briggs, C.A., Anderson, D.J., Brioni, J.D., *et al.* Functional characterization of the novel neuronal nicotinic acetylcholine receptor ligand GTS-21 in vitro and in vivo. *Pharmacol. Biochem. Behav.* **57(1-2)**, 231-241 (1997).
3. Nanri, M., Yamamoto, J., Miyake, H., *et al.* Protective effect of GTS-21, a novel nicotinic receptor agonist, on delayed neuronal death induced by ischemia in gerbils. *Jpn. J. Pharmacol.* **76(1)**, 23-29 (1998).

#### 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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