

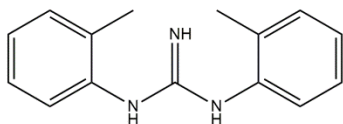
Ditolylguanidine

06/20

ALTERNATE NAMES: DTG; DOTG; 1,3-Di-o-tolylguanidine; 1,2-bis(2-methylphenyl)guanidine; {imino[(2-methylphenyl)amino]methyl}(2-methylphenyl)amine; 1,3-di-ortho-tolyl-guanidine

CATALOG #: B3044-100 100 mg
B3044-500 500 mg

STRUCTURE:



MOLECULAR FORMULA: C₁₅H₁₇N₃

MOLECULAR WEIGHT: 239.32

CAS NUMBER: 97-39-2

APPEARANCE: White to Off-White powder

PURITY: ≥98%

SOLUBILITY: ~6 mg/ml in DMSO

DESCRIPTION: Ditolylguanidine is a sigma receptor (σ R) agonist with neuroprotective activity. It shows K_d values of 21.9 nM and 57.4 nM for σ_2 and σ_1 receptor respectively. Combined treatment with Ditolylguanidine (5 mg/kg) and memantine induces antidepressant-like effect in rats. Sigma receptor modulators are predicted to show activity against SARS-Cov-2, based on viral assay screens and interaction of the SARS-CoV-2 proteins Nsp6 and Orf9c with sigma receptors.

STORAGE TEMPERATURE: -20°C

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Garcés-Ramírez, L., Green, J.L., Hiranita, T., et al. Sigma receptor agonists: Receptor binding and effects on mesolimbic dopamine neurotransmission assessed by microdialysis. *Biol Psychiatry*. 69(3): 208–217 (2011).
2. Skuza, G., Rogoz, Z. Sigma1 receptor antagonists attenuate antidepressant-like effect induced by co-administration of 1,3 di-o-tolylguanidine (DTG) and memantine in the forced swimming test in rats. *Pol J Pharmacology*. 55 (6): 1149–52 (2003).
3. Guo, L., Zhen, X. Sigma-2 Receptor Ligands: Neurobiological Effects. *Curr Med Chem*. 22(8):989-1003 (2015).

RELATED PRODUCTS:

Olanzapine (Cat. No. B2677)
 Valbenazine (Cat. No. B2954)
 AMG-517 (Cat. No. B3019)
 Remdesivir (Cat. No. B2997)
 Lasmiditan hemisuccinate (Cat. No. B3032)

DISCLAIMER: **FOR RESEARCH USE ONLY! Not to be used on humans.**