TPA 023

Cat. No.: HY-101640
CAS No.: 252977-51-8
Molecular Formula: C₂₀H₂₂FN₇O
Molecular Weight: 395.43
Target: GABA Receptor
Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:
- Powder: -20°C 3 years, 4°C 2 years
- In solvent: -80°C 6 months, -20°C 1 month

**BIOLOGICAL ACTIVITY**

**Description**
TPA 023 is a GABAA α2/α3 subtype-selective agonist, with Kᵢ of 0.19-0.41 nM.

**IC₅₀ & Target**
Ki: 0.19-0.41 nM (GABAA)

**In Vivo**
TPA023 displays good receptor occupancy, when administered orally to rats. The dose of TPA023 resulting in 50% occupancy of rat brain GABAA receptors is 0.42 mg/kg, with the corresponding plasma concentration being 25 ng/mL. TPA023 is also efficacious in the mouse pentylentetrazole-induced seizure model, providing full seizure protection at a dose of 10 mg/kg i.p. (84% occupancy), with the ED₅₀ of 0.19-0.41 nM, for protection against tonic convulsions (1.4 mg/kg i.p.) corresponding to around 50% occupancy. TPA023 (3 mg/kg p.o. in 0.5% methyl cellulose) shows anxiolytic-like effect on rats[^1]. TPA023 (0.7, 2.0, and 5 mg/kg, p.o.) blocks ketamine’s cognitive-impairing ability but does not influence the behavioral symptoms of rhesus monkeys[^2].

**REFERENCES**


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**Caution:** Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898  Fax: 609-228-5909  E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA