Tonapofylline

Cat. No.: HY-14873
CAS No.: 340021-17-2
Molecular Formula: C₂₂H₃₂N₄O₄
Molecular Weight: 416.51
Target: Adenosine Receptor
Pathway: GPCR/G Protein
Storage:
- Powder -20°C 3 years
  4°C 2 years
- In solvent -80°C 6 months
  -20°C 1 month

BIOLOGICAL ACTIVITY

Description
Tonapofylline (BG 9928) is an orally active and selective adenosine A₁ receptor antagonist with a Kᵢ of 7.4 nM for human adenosine A₁ receptor (hA₁), which displays 915-fold selectivity versus human adenosine A₂A receptor and 12-fold selectivity versus human adenosine A₂B receptor and is used in development for the treatment of heart failure.[1][2]

IC₅₀ & Target
Ki: 7.4 nM (Human adenosine A1 receptor)[1]

In Vivo
Tonapofylline (BG 9928) (1 mg/kg; p.o., b.i.d, days 0-6) produces sustained reductions in post-Cisplatin serum creatinine and blood urea nitrogen levels, improves body weight recovery and significant attenuation of Cisplatin-induced (5.5 mg/kg) kidney pathology scores.[3]

Animal Model:
Female viral antigen-free Sprague-Dawley rats[3]

Dosage:
1 mg/kg

Administration:
Oral administration; twice a day, days 0-6

Result:
Produced sustained reductions in post-Cisplatin serum creatinine and blood urea nitrogen levels, improved body weight recovery and significant attenuation of Cisplatin-induced (5.5 mg/kg) kidney pathology scores.

REFERENCES
