

# Glycopyrrolate

## Catalog No: tcsc1763



### Available Sizes

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



### Specifications

**CAS No:**

596-51-0

**Formula:**

$C_{19}H_{28}BrNO_3$

**Pathway:**

Neuronal Signaling;GPCR/G Protein

**Target:**

mAChR;mAChR

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : ≥ 45 mg/mL (112.97 mM)

**Alternative Names:**

Glycopyrrolate bromide;Glycopyrronium bromide

**Observed Molecular Weight:**

398.33

### Product Description

Glycopyrrolate(Glycopyrronium Br) is a muscarinic competitive antagonist used as an antispasmodic.

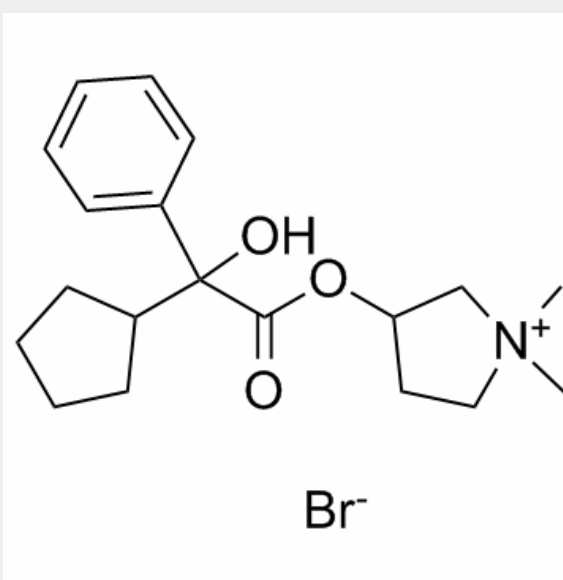
IC50 Value:

Target: mAChR (Muscarinic acetylcholine receptor M1)

in vitro: Glycopyrrolate showed no selectivity in its binding to the M1-M3 receptors. Kinetics studies, however, showed that glycopyrrolate dissociates slowly from HASM muscarinic receptors (60% protection against [3H]-NMS binding at 30 nM) compared to ipratropium bromide [1].

in vivo: Glycopyrrolate (1 mg) tablets were then administered, starting with one tablet daily the third week and increasing the daily dose by one tablet per week until a maximum of four tablets during week six and 4 days of week seven when the daily dose was reduced to two tablets for 3 days. glycopyrrolate can be given in controlled doses provided that an adequate medical assessment has been undertaken [2]. Glycopyrrolate has a slow and erratic absorption from the gastrointestinal system, but even low plasma levels are associated with a distinct and long-lasting antisialogogic effect [3]. Oral glycopyrrolate is emerging as a potential second-line treatment option, but experience with safety, efficacy, and dosing is especially limited in children [4]. phase III study, 52.3% of glycopyrrolate oral solution recipients (aged 3-18 years; n = 137) had an mTDS response (primary endpoint); the response rate was consistently above 50% at all 4-weekly timepoints, aside from the first assessment at week 4 (40.3%). In general, glycopyrrolate oral solution was well tolerated in clinical trials. The majority of adverse events were within expectations as characteristic anticholinergic outcomes [5].

Toxicity: Side effects include dry mouth, difficult urinating, heachaches, diarrhea and constipation. The medication also induces drowsiness or blurred vision. LD50=709 mg/kg (rat, oral).



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