

Product Data Sheet

Product Name: Alverine Citrate

Cat. No.: GC10891

Chemical Properties

Cas. No. 5560-59-8

Chemical Name N-ethyl-3-phenyl-N-(3-phenylpropyl)propan-1-amine;2-hydroxypropane-1,2,3-tricarboxylic acid

SMILES CCN(CCCC1=CC=CC=C1)CCCC2=CC=CC=C2.C(C(=O)O)C(CC(=O)O)(C(=O)O)O

Formula $C_{20}H_{27}N.C_6H_8O_7$ M.Wt 473.56

Solubility $\geq 23.68\text{mg/mL}$ in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

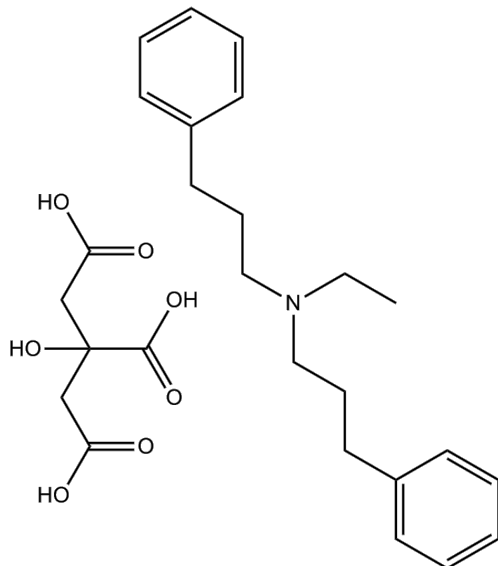
Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Structure



Background

Alverine citrate is a 5-HT_{1A} receptor antagonist, with an IC₅₀ of 101 nM.

Alverine is a drug used for functional gastrointestinal disorders. Alverine acts directly on the muscle in the gut, causing it to relax. Alverine Citrate (20 mg/kg) suppresses the effect of 5-HTP, but not that of 8-OH-DPAT. However, when injected intracerebroventricularly (75 µg/rat) alverine citrate reduces 8-OH-DPAT-induced enhancement of rectal distension-induced abdominal contractions. In-vitro binding studies reveal that Alverine citrate has a high affinity for 5-HT_{1A} receptors and a weak affinity for 5-HT₃ and 5-HT₄ subtypes[1]. Alverine may increase Ca influx during action potentials due to inhibition of the inactivation of L-type Ca channels, but may also suppress evoked activity by inhibiting the sensitivity of contractile proteins to Ca²⁺[2].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

References:

- [1]. Coelho, A.M., et al., Rectal antinociceptive properties of alverine citrate are linked to antagonism at the 5-HT_{1A} receptor subtype. J Pharm Pharmacol, 2001. 53(10): p. 1419-26.
- [2]. Hayase, M., et al., Evolving mechanisms of action of alverine citrate on phasic smooth muscles. Br J Pharmacol, 2007. 152(8): p. 1228-38.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA