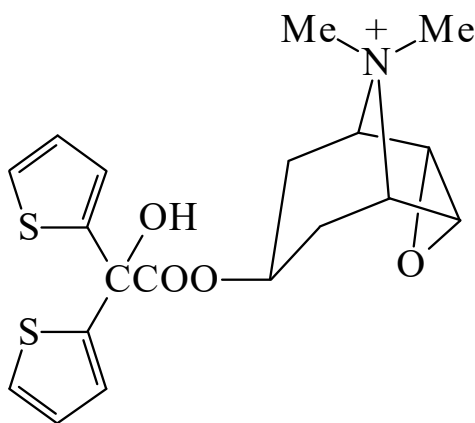




>>Entry Name: Tiotropium(1+)

Synonym(s): 7-[(Hydroxydi-2-thienylacetyl)oxy]-9,9-dimethyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane(1+), 9Cl



Related CAS Registry Numbers(s): 136521-48-7

Molecular Formula: C₁₉H₂₂NO₄S₂⁽⁺⁾

Molecular Weight: 392.519

Accurate Mass: 392.099024

Percentage Composition: C 58.14%; H 5.65%; N 3.57%; O 16.30%; S 16.34%

>>Derivative: Bromide

Synonym(s): Tiotropium bromide, INN. Ba 679 BR

CAS Registry Number: 136310-93-5

Molecular Formula: C₁₉H₂₂BrNO₄S₂

Molecular Weight: 472.423

Accurate Mass: 471.03736

Percentage Composition: C 48.31%; H 4.69%; Br 16.91%; N 2.96%; O 13.55%; S 13.58%

Use/Importance: Muscarinic antagonist. Long-acting anticholinergic bronchodilator

Physical Description: Two isomers characterised

Melting Point: Mp 217-218°. Mp 218-220°

References:

Eur. Pat., 1991, *Boehringer Ingelheim*, 418 716; *CA*, **116**, 20937c, (*synth, pharmacol*)

Disse, B. *et al.*, *Life Sci.*, 1993, **52**, 537, (*pharmacol*)

Haddad, E.-B. *et al.*, *Mol. Pharmacol.*, 1994, **45**, 899, (*pharmacol*)