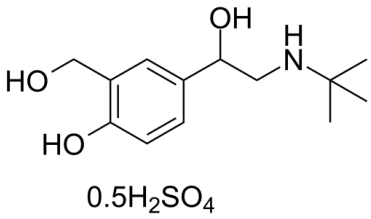
Data Sheet

Product Name:	Salbutamol (hemisulfate)
Cat. No.:	CS-2542
CAS No.:	51022-70-9
Molecular Formula:	C13H22NO5S0.5
Molecular Weight:	288.14
Target:	Adrenergic Receptor; Autophagy
Pathway:	Autophagy; GPCR/G Protein; Neuronal Signaling
Solubility:	H2O : ≥ 130 mg/mL (451.17 mM)



BIOLOGICAL ACTIVITY:

Salbutamol Hemisulfate (Albuterol hemisulfate) is a short-acting β2 adrenergic receptor agonist Target: β2 Adrenergic Receptor Salbutamol Hemisulfate (Albuterol hemisulfate) is a short-acting, selective beta2-adrenergic receptor agonist used in the treatment of asthma and COPD. All the effects of R,S-salbutamol on guinea-pig skeletal muscles are due to the activity of the R-enantiomer. Thus there is a common enantiomeric profile for the skeletal muscle and bronchorelaxant activity of the compound [1]. Short-term Salbutamol intake did appear to improve performance during intense submaximal exercise with concomitant increase in substrate availability and utilization, but the exact mechanisms involved need further investigation [2]. Short-term administration of salbutamol increases voluntary muscle strength in man. However, the magnitude and duration of this effect vary between muscle groups. This study implies that the beta 2-adrenoceptor agonists may be of therapeutic potential in altering skeletal muscle function in humans [3].

References:

[1]. Prior, C., M.B. Leonard, and J.R. McCullough, Effects of the enantiomers of R,S-salbutamol on incompletely fused tetanic contractions of slow- and fast-twitch skeletal muscles of the guinea-pig. Br J Pharmacol, 1998. 123(3): p. 558-64.

[2]. Collomp, K., et al., Effects of short-term oral salbutamol administration on exercise endurance and metabolism. J Appl Physiol (1985), 2000. 89(2): p. 430-6.

[3]. Martineau, L., et al., Salbutamol, a beta 2-adrenoceptor agonist, increases skeletal muscle strength in young men. Clin Sci (Lond), 1992. 83(5): p. 615-21.

CAIndexNames:

1,3-Benzenedimethanol, α1-[[(1,1-dimethylethyl)amino]methyl]-4-hydroxy-, sulfate (2:1)

SMILES:

OC(C1=CC(CO)=C(O)C=C1)CNC(C)(C)C.[0.5H2SO4]

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

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