Siguazodan

Cat. No.: HY-19026
CAS No.: 115344-47-3
Molecular Formula: C₁₄H₁₆N₆O
Molecular Weight: 284.32
Target: Phosphodiesterase (PDE)
Pathway: Metabolic Enzyme/Protease
Storage: Powder -20°C 3 years
         -4°C  2 years
         In solvent -80°C 6 months
         -20°C 1 month

BIOLOGICAL ACTIVITY

Description: Siguazodan (SKF 94836) is a potent, selective and orally active phosphodiesterase III (PDE-III) inhibitor with an IC₅₀ of 117 nM. Siguazodan increases cAMP accumulation in intact platelets with an EC₅₀ of 18.88 μM. Siguazodan also inhibits phenylephrine-induced 5-HT release with an IC₅₀ value of 4.2 μM.[1][2][3].

IC₅₀ & Target

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<th>IC₅₀</th>
<th>Target</th>
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<td>117 nM</td>
<td>(phosphodiesterase III)[1]</td>
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In Vitro: Siguazodan selectively inhibits the major cyclic AMP-hydrolysing PDE in human platelet supernatants. The inhibited enzyme has been variously termed cyclic GMP-inhibited PDE or PDE-III. In platelet-rich plasma (PRP), Siguazodan inhibits U46619-induced aggregation more potently than that induced by adenosine 5'-diphosphate (ADP), and collagen. Treatment of the PRP with Aspirin has no effect on the potency of Siguazodan. In washed platelets, Siguazodan increases cyclic AMP levels and reduces cytoplasmic free calcium. ADP decreases the ability of Siguazodan to raise cyclic AMP and this may explain its lower potency in inhibiting responses to ADP. Siguazodan has anti-platelet actions over the same concentration range that it is an inotrope and vasodilator[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo: Siguazodan is a potent, selective inhibitor of phosphodiesterase III that has positive inotropic and vasodilating actions in various laboratory animals and is orally active with a long duration of action in conscious dogs[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES


