BIOLOGICAL ACTIVITY:

Proxyphylline is a methylxanthine derivative clinically used as a cardiac stimulant, vasodilator and bronchodilator.

In Vitro: Proxyphylline has shown vasodilatory and cardiac stimulatory effects. Proxyphylline produces an increase in the coronary flow associated with a definite positive inotropic effect\(^{[1]}\). Proxyphylline inhibits tracheal PDE–activity and half–maximum relaxation of tracheal smooth muscle is obtained with 100 μg/mL proxyphylline\(^{[2]}\).

In Vivo: In a double–blind cross–over study, proxyphylline exhibits bronchodilatory effect\(^{[3]}\). Proxyphylline inhibits cAMP and cGMP hydrolysis in human lung tissue. The apparent inhibition constant of proxyphylline is 0.06–0.7 mM at low cAMP concentrations and it is 1.0 mM at high cAMP concentrations\(^{[3]}\).

References:


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

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