**Product Name:** Doxapram hydrochloride hydrate

**CAS No.:** 7081-53-0

**Cat. No.:** HY-B0551A

**MWt:** 432.98

**Formula:** C24H33ClN2O3

**Purity:** >98%

**Solubility:** DMSO 87 mg/mL; Water 25 mg/mL

**Mechanisms:**
Pathways: Membrane Transporter/Ion Channel; Target: Potassium Channel

**Biological Activity:**
Doxapram hydrochloride hydrate inhibits TASK-1, TASK-3, TASK-1/TASK-3 heterodimeric channel function with EC50 of 410 nM, 37 μM, 9 μM, respectively. Target: Potassium Channel
Doxapram is a respiratory stimulant. Doxapram (15-150 microM) also evoked 3H overflow in a concentration dependent manner, and doxapram-evoked release was inhibited by the Ca2+ channel blocker nifedipine (5 microM). Analysis of released tritiated compounds suggested that doxapram preferentially stimulated the release of dopamine. Our results indicate that the mechanism of action of doxapram shares similarities with that of hypoxia in the carotid body [1]. Doxapram (1-100 microM) caused rapid, reversible and dose-dependent inhibitions of K+ currents recorded in type I cells (IC50 approximately 13 microM). doxapram was also seen to directly inhibit Ca(2+)-independent K+ currents. Doxapram was a more...

**References:**

Caution: Not fully tested. For research purposes only

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