

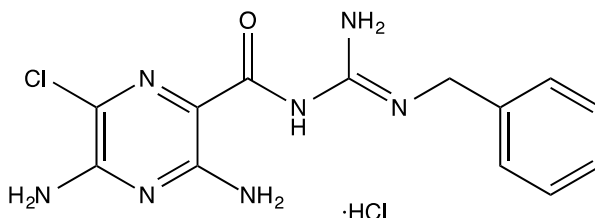
**Catalog # 10-4541**

**Benzamil HCl**

CAS# 161804-20-2

N-(Benzylamidino)-3,5-diamino-6-chloropyrazinecarboxamide hydrochloride

Lot # FBA7051



Benzamil (161804-21-2) is a more potent ( $K_i = 10 \text{ nM}$  vs  $182 \text{ nM}^1$ ,  $IC_{50} = 9 \mu\text{M}^2$ ) version of the epithelial sodium channel blocker Amiloride. It is also an inhibitor of  $\text{Na}^+/\text{Ca}^{2+}$  exchange transport ( $IC_{50} = 11 \mu\text{M}^2$ ) and the  $\text{Na}^+/\text{H}^+$  antiporter ( $IC_{50} = 80 \text{ nM}^2$ ).

References:

- 1) Cuthbert and Fanelli (1978), *Effects of some pyrazinecarboxamides on sodium transport in frog skin*; Br. J. Pharmacol. **63** 139
- 2) Kleyman and Cragoe (1988), *Amiloride and Its Analogs as Tools in the Study of Ion Transport*; J. Membrane Biol. **105** 1

**PHYSICAL DATA**

Molecular Weight: 356.21  
Molecular Formula:  $\text{C}_{13}\text{H}_{14}\text{ClN}_7\text{O}\cdot\text{HCl}$   
Purity: >98% by HPLC  
NMR: (Conforms)  
Solubility: DMSO (>25 mg/ml) or water (up to 5 mg/ml)  
Physical Description: Yellow solid  
Storage and Stability: Store as supplied at  $-20^\circ\text{C}$  for up to 1 year from the date of purchase. Solutions in DMSO or water may be stored at  $-20^\circ\text{C}$  for up to 3 months.

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