

**Product Name:** CGP 12177 hydrochloride

**Catalog No.:** 1134

**Batch No.:** 4

CAS Number: 64208-32-8

IUPAC Name: 4-[3-[(1,1-Dimethylethyl)amino]2-hydroxypropoxy]-1,3-dihydro-2*H*-benzimidazol-2-one hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>14</sub>H<sub>21</sub>N<sub>3</sub>O<sub>3</sub>·HCl

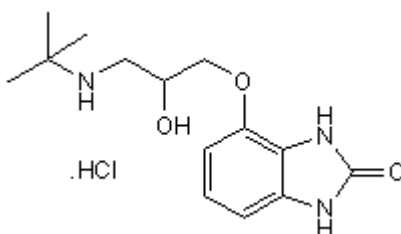
**Batch Molecular Weight:** 315.8

**Physical Appearance:** White solid

**Solubility:** water to 50 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.22 (Dichloromethane:N Ammonia in IMS [85:15])

**Melting Point:** Between 253 - 255°C

**<sup>1</sup>H NMR:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	53.25	7.02	13.31
Found	53.08	7	12.99

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**Description:**

Partial agonist at  $\beta_3$ -adrenoceptors.  $\beta_1$ - and  $\beta_2$ -adrenoceptor antagonist ( $K_i$  values are 0.9, 4 and 88 nM for  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  receptors respectively).

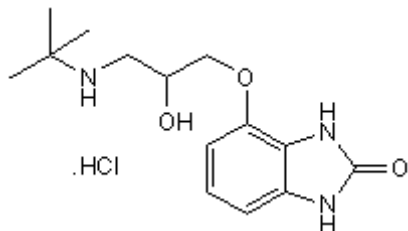
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{14}H_{21}N_3O_3 \cdot HCl$

Batch Molecular Weight: 315.8

Physical Appearance: White solid

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**Storage:** Store at RT

**Solubility & Usage Info:**

water to 50 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Staelin et al** (1983) CGP-12177. A hydrophilic beta-adrenergic receptor radioligand reveals high affinity binding of agonists to intact cells. *J.Biol.Chem.* **258** 3496. PMID: 6131886.

**Strosberg and Pietri-Rouxel** (1996) Function and regulation of the  $\beta_3$ -adrenoceptor. *TiPS* **17** 373. PMID: 8979772.

**Galitzky et al** (1998) On the presence of a putative fourth  $\beta$ -adrenoceptor in human adipose tissue. *TiPS* **19** 164. PMID: 9652187.

**Preitner et al** (1998) Metabolic response to various  $\beta$ -adrenoceptor agonists in  $\beta_3$ -adrenoceptor knockout mice: evidence for a new  $\beta$ -adrenergic receptor in brown adipose tissue. *Br.J.Pharmacol.* **124** 1684. PMID: 9756384.

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