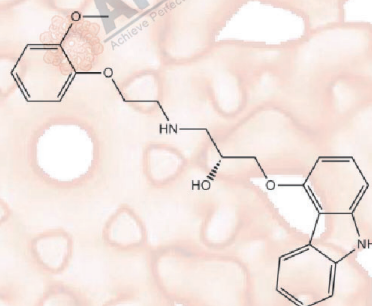


Product Data Sheet

Carvedilol

| | |
|------------------|---|
| Cat. No.: | B1332 |
| CAS No.: | 72956-09-3 |
| Formula: | C ₂₄ H ₂₆ N ₂ O ₄ |
| M.Wt: | 406.47 |
| Synonyms: | |
| Target: | GPCR/G protein |
| Pathway: | Adrenergic Receptor |
| Storage: | Store at -20°C |



Solvent & Solubility

≥40.6 mg/mL in DMSO; insoluble in H₂O; ≥2.415 mg/mL in EtOH with gentle warming and ultrasonic

| In Vitro | Preparing Stock Solutions | Mass | | | |
|----------|---------------------------|-----------------------|-----------|------------|------------|
| | | Solvent Concentration | 1mg | 5mg | 10mg |
| | | 1 mM | 2.4602 mL | 12.3010 mL | 24.6021 mL |
| | | 5 mM | 0.4920 mL | 2.4602 mL | 4.9204 mL |
| | | 10 mM | 0.2460 mL | 1.2301 mL | 2.4602 mL |

Please refer to the solubility information to select the appropriate solvent

Biological Activity

| | | |
|---------------------------|---|--|
| Shortsummary | Potent β-adrenoceptor and α ₁ -adrenoceptor antagonist | |
| IC ₅₀ & Target | | |
| In Vitro | Cell Viability Assay | |
| | Cell Line: | human neutrophils |
| | Preparation method: | The solubility of this compound in DMSO is >20.3mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months. |
| Reacting conditions: | 10~100μM | |

| | | |
|---------|--------------------------|---|
| | Applications: | Carvedilol inhibited PMA-induced O ₂ ⁻ production in human neutrophils in a dose-dependent manner with an IC ₅₀ value of 28µM. |
| In Vivo | Animal experiment | |
| | Animal models: | Lewis rats induced with acute experimental autoimmune myocarditis |
| | Dosage form: | 20 mg/kg/day for 3 wk |
| | Applications: | Carvedilol suppressed left ventricular fractional shortening and decreased heart rates, markedly reduced the severity of myocarditis and suppressed thickening of the left ventricular posterior wall in rats with experimental autoimmune myocarditis. |
| | Other notes: | Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal. |

Product Citations

See more customer validations on www.apexbt.com.

References

- [1] Wu TC, Chen YH, Leu HB, Chen YL, Lin FY, Lin SJ, Chen JW. Carvedilol, a pharmacological antioxidant, inhibits neointimal matrix metalloproteinase-2 and -9 in experimental atherosclerosis. *Free Radic Biol Med.* 2007 Dec 1;43(11):1508-22.
- [2] Yuan Z, Shioji K, Kihara Y, Takenaka H, Onozawa Y, Kishimoto C. Cardioprotective effects of carvedilol on acute autoimmune myocarditis: anti-inflammatory effects associated with antioxidant property. *Am J Physiol Heart Circ Physiol.* 2004 Jan;286(1):H83-90.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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