**Product Name**: Clindamycin HCl  
**Catalog Number**: T6448  
**CAS Number**: 21462-39-5  
**Molecular Formula**: C18H33ClN2O5S·HCl  
**Molecular Weight**: 461.44

**Description**: Clindamycin Hydrochloride inhibits protein synthesis by acting on the 50S ribosomal. It is the hydrochloride salt form of clindamycin, a semi-synthetic, chlorinated broad-spectrum antibiotic produced by chemical modification of lincomycin. Clindamycin hydrochloride is used as a solid in capsules.

**Storage**: 2 years -80°C in solvent; 3 years -20°C powder;

**Solubility**

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Solubility</th>
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<tr>
<td>DMSO</td>
<td>46.1 mg/mL (100 mM)</td>
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(< 1 mg/ml refers to the product slightly soluble or insoluble)

**Receptor (IC50)**

Others

**In vitro Activity**

Clindamycin is a classical inhibitor of bacterial protein synthesis, by binding to the 23S ribosomal RNA of the 50S ribosomal subunit. [1]

**In vivo Activity**

Clindamycin hydrochloride results in fast absorption after oral administration in dogs, with a mean absorption time (MAT) of 0.87 hour, and bioavailability is 72.55%. Clindamycin hydrochloride results in total clearance (CL) of Clindamycin after both IV and oral administration (0.503 vs. 0.458 L/h/kg) in dogs. Clindamycin hydrochloride results in volume of distribution at steady-state (IV) at 2.48 L/kg, indicating a wide distribution of clindamycin in body fluids and tissues. Clindamycin serum concentrations after IV and oral administration remain above 0.5 μg/mL approximately for 10 hours. [1] Clindamycin hydrochloride significantly reduces oral malodor from the dogs’ baseline levels through 42 days. Clindamycin hydrochloride also results in significant reductions in dental plaque, dental calculus, and gingival bleeding in dogs. [2] Clindamycin hydrochloride (2.5 mg/lb), after ultrasonic scaling, root planing, and polishing (USRP), has a significant effect on plaque and pocket depth measures of periodontal disease but not on gingivitis in canine. [3] Clindamycin hydrochloride results in complete remission ratio of 71.4% (15/21) in dogs with canine superficial bacterial pyoderma after treat within 14 to 28 days. [4]

**Animal Experiment**

Animal Model: Clindamycin hydrochloride 1% is formulated in heparinized normal saline.

**Reference**


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Information for product storage and handling is indicated on the product datasheet. Targetmol products are stable for long term under the recommended storage conditions. Our products may be shipped under different conditions as many of them are stable in the short-term at higher or even room temperatures. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, please follow the storage recommendations on the product data sheet.