**Product Data Sheet**

### Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Name:</strong></td>
<td>BW-B 70C</td>
</tr>
<tr>
<td><strong>Cas No.:</strong></td>
<td>134470-38-5</td>
</tr>
<tr>
<td><strong>M.Wt:</strong></td>
<td>316.33</td>
</tr>
<tr>
<td><strong>Formula:</strong></td>
<td>C17H17FN2O3</td>
</tr>
</tbody>
</table>

**Chemical Name:** (R,E)-1-(4-(3-(4-fluorophenoxy)phenyl)but-3-en-2-yl)-1-hydroxyurea

**Canonical SMILES:** FC1=CC=C(C=C1)OC2=CC(/C=C/[C@@H](C)N(C(N)=O)O)=CC=C2

**Solubility:** Limited solubility, soluble in DMSO or ethanol

**Storage:** Desiccate at -20°C

**General tips:** For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

**Shopping Condition:** Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

### Biological Activity

**Targets:** Immunology/Inflammation

**Pathways:** 5-Lipoxygenase

**Description:**

BW-B 70C is a potent and selective inhibitor of 5-lipoxygenase [1]. 5-lipoxygenase is an enzyme that transforms essential fatty acids (EFAs) into leukotrienes and is activated by 5-lipoxygenase activating protein (FLAP). BW-B 70C is a potent and selective 5-lipoxygenase inhibitor. BW-B 70C had high potency and long duration in vivo and was considered as potential anti-asthma drug [1]. In sensitised guinea-pigs, BW B70C (2-50 mg/kg) inhibited bronchoconstriction induced by allergen in a dose-dependent way, which was consistent with the inhibitory activity of BW B70C against 5-lipoxygenase. Also,
BW B70C (20 mg/kg) inhibited eosinophil infiltration by 67% [2]. In guinea-pigs, the 5-lipoxygenase inhibitor, BW B70C (30 mg/kg) inhibited leucocyte migration to the airways lumen, leukotriene C4 synthesis by alveolar macrophages and albumin microvascular leakage induced by endotoxin. However, BW B70C didn’t affect vascular leucocyte margination and the blood levels of secreted phospholipase A2 and TNF-α [3]. In a focal cerebral ischemia rat model, BW-B 70C improved neurological deficit scores and decreased infarctions. Also, BW-B 70C reduced 5-lipoxygenase (5-LOX) and inhibited inducible nitric oxide synthase (iNOS) expression through down-regulation of NF-κB [4].

Reference:

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 ApexBio 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.