**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>Rimonabant</td>
</tr>
<tr>
<td><strong>Cas No.:</strong></td>
<td>168273-06-1</td>
</tr>
<tr>
<td><strong>M.Wt:</strong></td>
<td>463.79</td>
</tr>
<tr>
<td><strong>Formula:</strong></td>
<td>C22H21Cl3N4O</td>
</tr>
<tr>
<td><strong>Synonyms:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Chemical Name:</strong></td>
<td>5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-piperidin-1-yl pyrazole-3-carboxamide</td>
</tr>
<tr>
<td><strong>Canonical SMILES:</strong></td>
<td>CC1=C(N(N=C1C(=O)NN2CCCCC2)C3=C(C(C=C3)Cl)Cl)C4=CC=C(C=C4)Cl</td>
</tr>
<tr>
<td><strong>Solubility:</strong></td>
<td>$\geq 23.2$mg/mL in DMSO</td>
</tr>
<tr>
<td><strong>Storage:</strong></td>
<td>Store at $-20^\circ C$</td>
</tr>
<tr>
<td><strong>General tips:</strong></td>
<td>For obtaining a higher solubility, please warm the tube at $37^\circ C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^\circ C$ for several months.</td>
</tr>
</tbody>
</table>
| **Shopping Condition:** | Evaluation sample solution: ship with blue ice  
All other available size: ship with RT, or blue ice upon request |

### Biological Activity

**Targets:** GPCR/G protein  
**Pathways:** Cannabinoid Receptor  
**Description:**  
Rimonabant (SR141716) is a potent and selective antagonist of central cannabinoid (CB1) receptor with Ki values of 1.8nM and 514nM for CB1 and CB2, respectively [1].  
Rimonabant (SR141716) has shown a 285-fold CB1 selectivity (Ki=1.8nM CB1, 514nM CB2). The affinity of Rimonabant for CB1-Rs is 50-fold higher than for CB2-Rs with a Ki value of 6.18nM for CB1-Rs [1]. In addition, Rimonabant has been revealed to produce changes in ingestive behaviors...
when treatment alone. Moreover Rimonabant has been reported to selectively reduce the
consumption of palatable food and drink. Rimonabant has also been noted to decrease sucrose
intake in rat, alcohol consumption in mice and sweet diet intake in marmosets when having little
effect on bland food consumption [2].

Reference:
Anti-obesity effect of SR141716, a CB1 receptor antagonist, in diet-induced obese mice. Am J

Protocol

Cell experiment:

Cell lines
Peripheral blood mononuclear cells (PBMC); keratinocyte cell line
(C5N cells)

Preparation method
The solubility of this compound in DMSO is >10 mM. 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

Applications
Treatment with rimonabant in peripheral blood mononuclear cells
(PBMC) did not induce significant changes of monocytes, B cells,
total T cells or T cell subsets. Moreover, there was a small but
significant increase in CD16+, CD3–, and/or CD56+ cells after
rimonabant therapy. Additionally, Rimonabant reduced keratinocyte
cell line (C5N cells) viability by induction of apoptosis.

Animal experiment [3]:

Animal models
Male CD-1 mice model

Dosage form
0.1, 0.3, and 1.0μmol·cm⁻² for 6 h or 24 h

Applications
Rimonabant significantly reduced oedema and leukocyte infiltrate,
and showed topical anti-inflammatory activity in mice.

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.
Reference:

Product Citations


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. Shortterm 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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