

Certificate of Analysis

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| | | | | | |
|----------------------|--|---------------------|-------------|-------------------|----------|
| Product Name: | RNB 61 | Catalog No.: | 8835 | Batch No.: | 1 |
| CAS Number: | 1217403-51-4 | | | | |
| IUPAC Name: | <i>N</i> -[(3 <i>E</i>)-5- <i>tert</i> -Butyl-2-(cyclobutylmethyl)-1-methyl-1,2-dihydro-3 <i>H</i> -pyrazol-3-ylidene]-2-(2-hydroxy-2-methylpropoxy)-5-(trifluoromethyl)benzamide | | | | |

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₃₄F₃N₃O₃.

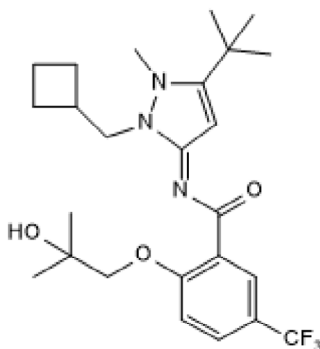
Batch Molecular Weight: 481.56

Physical Appearance: White crystalline solid

Solubility: DMSO to 50 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 62.35 | 7.12 | 8.73 |
| Found | 62.43 | 7.18 | 8.71 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: *N*-[(3*E*)-5-*tert*-Butyl-2-(cyclobutylmethyl)-1-methyl-1,2-dihydro-3*H*-pyrazol-3-ylidene]-2-(2-hydroxy-2-methylpropoxy)-5-(trifluoromethyl)benzamide

Description:

RNB 61 is a highly potent and selective cannabinoid CB2 receptor (CB2R) agonist ($K_i = 0.57$ nM). RNB 61 shows >5000-fold selectivity for hCB2R over hCB1R. In vivo, RNB 61 inhibits the FSK-induced cAMP formation on mouse, rat, and dog CB2Rs (EC_{50} values ranging from 0.13 to 1.86 nM). RNB 61 has a peripherally restricted action and exerts a nephroprotective and/or antifibrotic effects in animal models of kidney disease.

Physical and Chemical Properties:

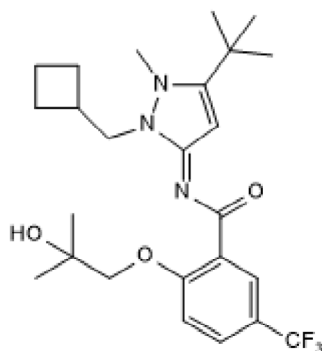
Batch Molecular Formula: $C_{25}H_{34}F_3N_3O_3$.

Batch Molecular Weight: 481.56

Physical Appearance: White crystalline solid

Minimum Purity: ≥97%

Batch Molecular Structure:



References:

Chicca et al (2024) A highly potent, orally bioavailable pyrazole-derived cannabinoid CB2 receptor- selective full agonist for *in vivo* studies. *ACS Pharmacol. Transl. Sci.* **7** 2424. PMID: 39144568.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 mM

ethanol to 100 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

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