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## **Certificate of Analysis**

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#### Product Name: RNB 61

Catalog No.: 8835 Batch No.: 1

CAS Number: 1217403-51-4

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

## 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility: C<sub>25</sub>H<sub>34</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>. 481.56 White crystalline solid

DMSO to 50 mM ethanol to 100 mM Store at -20°C

## Storage:

**Batch Molecular Structure:** 



### 2. ANALYTICAL DATA

HPLC: <sup>1</sup>H NMR: Mass Spectrum: Microanalysis: Shows 97.3% purity Consistent with structure Consistent with structure 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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#### Print Date: Feb 25th 2025

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#### **Description:**

RNB 61 is a highly potent and selective cannabinoid CB2 receptor (CB2R) agonist (Ki = 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<sub>50</sub> values ranging from 0.13 to 1.86 nM).

#### **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:**



## 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.

#### **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.

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