Certificate of Analysis

www.tocris.com

Print Date: May 20th 2021

Product Name: **RA 2**

CAS Number: 1867107-62-7 **IUPAC Name:** 1,3-Phenylenebis(methylene)bis(3-fluoro-4-hydroxybenzoate)

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility:

Batch Molecular Structure:

 $C_{22}H_{16}F_2O_6$. 414.36 White solid DMSO to 100 mM ethanol to 100 mM Store at -20°C

0 0 HO

2. ANALYTICAL DATA

Storage:

HPLC: ¹H NMR: Mass Spectrum: **Microanalysis:**

Shows 99.5% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen Theoretical 63.77 3.89 63.78 Found 3.91

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

Catalog No.: 7129 Batch No.: 1



Product Information

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Catalog No.: 7129

Batch No.: 1

CAS Number: 1867107-62-7 IUPAC Name: 1.3-Phenylene

1,3-Phenylenebis(methylene)bis(3-fluoro-4-hydroxybenzoate)

Description:

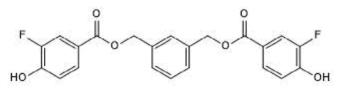
RA 2 is a potent negative modulator of calcium-activated potassium channels $K_{Ca}2.3$ and $K_{Ca}3.1$ (IC₅₀ values are 2 and 17 nM, respectively), which displays >55-fold selectively for $K_{Ca}2$ and $K_{Ca}3.1$ over other K_{Ca} , K_v and K_{ir} channels. In ex vivo porcine coronary endothelium, RA 2 inhibits SKA 31 (Cat. No. 3670)-induced $K_{Ca}2/K_{Ca}3.1$ currents and TRAM 34 (Cat. No. 2946)-insensitive $K_{Ca}2$ currents. Reduces heart rate in mice in a $K_{Ca}3.1$ -dependent manner. Please see product datasheet on www.tocris.com for full description.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{22}H_{16}F_2O_6$. Batch Molecular Weight: 414.36 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 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 $45-60^{\circ}C$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

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:

Olivan-Viguera *et al* (2016) Vascular reactivity profile of novel K_{Ca}3.1-selective positive-gating modulators in the coronary vascular bed. Basic Clin.Pharmacol.Toxical. **119** 184. PMID: 26821335.

Olivan-Viguera *et al* (2015) A novel pan-negative-gating modulator of K_{Ca}2/3 channels, fluoro-di-benzoate, RA-2, inhibits endotheliumderived hyperpolarization-type relaxation in coronary artery and produces bradycardia *in vivo*. Mol.Pharmacol. **338**. PMID: 25468883.

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