

# Certificate of Analysis

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**Product Name:** Yoda 2

**Catalog No.:** 8051

**Batch No.:** 2

**CAS Number:** 3081450-95-2

**IUPAC Name:** Potassium 4-(5-((2,6-dichlorobenzyl)thio)-1,3,4-thiadiazol-2-yl)benzoate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>9</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>K.½H<sub>2</sub>O

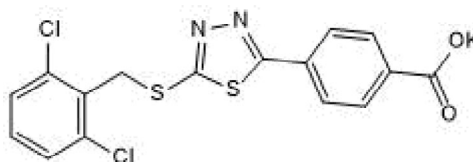
**Batch Molecular Weight:** 444.39

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 50 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.1% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	43.24	2.27	6.3
Found	42.45	1.99	6.06

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**Description:**

Yoda 2 is a selective Piezo1 channel activator (EC<sub>50</sub> values are 150 nM and 1.14 µM in mPiezo1 and HUVEC cells respectively). Increases Ca<sup>2+</sup> signaling 2.8 fold in hPIEZO-TREx and 1.2 fold in mPIEZO1-TREx, compared to Yoda 1 (Cat. No. 5586). Induces concentration-dependent relaxation of mouse portal vein (EC<sub>50</sub> = 1.2 µM). Suitable for use in vivo and in vitro.

**Physical and Chemical Properties:**

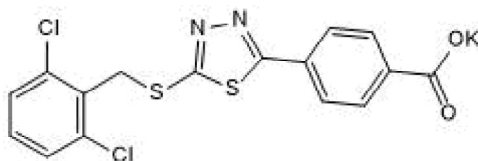
Batch Molecular Formula: C<sub>16</sub>H<sub>9</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>K.½H<sub>2</sub>O

Batch Molecular Weight: 444.39

Physical Appearance: White solid

**Minimum Purity:** ≥97%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 100 mM

DMSO to 50 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:**

**Parsonage et al** (2023) Improved PIEZO1 agonism through 4-benzoic acid modification of Yoda1. Br.J.Pharmacology **180** 2039. PMID: 36457143.

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