

Product Name: Yoda 2

Catalog No.: 8051

Batch No.: 1

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₉Cl₂N₂O₂S₂K.¾H₂O

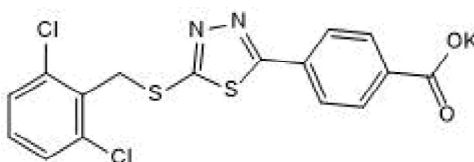
Batch Molecular Weight: 448.89

Physical Appearance: Off White solid

Solubility: water to 100 mM
DMSO to 50 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	42.81	2.36	6.24
Found	42.19	2.14	6.05

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

Description:

Yoda 2 is a selective Piezo1 channel activator (EC₅₀ values are 150 nM and 1.14 μM in mPiezo1 and HUVEC cells respectively). Increases Ca²⁺ 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 (EC₅₀ = 1.2 μM). Suitable for use in vivo and in vitro.

Physical and Chemical Properties:

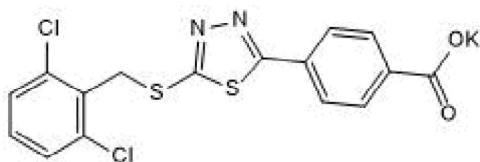
Batch Molecular Formula: C₁₆H₉Cl₂N₂O₂S₂K.¼H₂O

Batch Molecular Weight: 448.89

Physical Appearance: Off White solid

Minimum Purity: ≥97%

Batch Molecular Structure:



References:

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

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.

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