

**Product Name:** TM 5441

**Catalog No.:** 6194

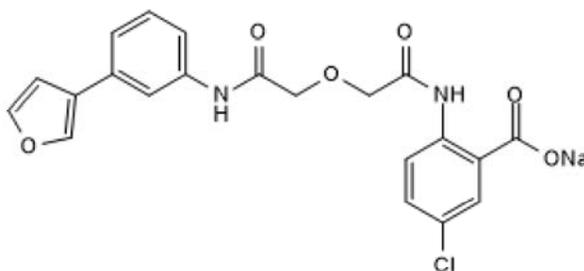
**Batch No.:** 1

CAS Number: 2319722-53-5

IUPAC Name: 5-Chloro-2-[[2-[2-[[3-(3-furanyl)phenyl]amino]-2-oxoethoxy]acetyl]amino]benzoic acid sodium salt

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>21</sub>H<sub>16</sub>ClN<sub>2</sub>NaO<sub>6</sub>·½H<sub>2</sub>O  
**Batch Molecular Weight:** 455.3  
**Physical Appearance:** Light Beige solid  
**Solubility:** DMSO to 100 mM  
water to 5 mM with gentle warming  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows >99.3% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	55.4	3.65	6.15
Found	55.32	3.36	6.17

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

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**Description:**

TM 5441 is a plasminogen activator inhibitor-1 (PAI-1) inhibitor ( $IC_{50} = 3.58 - 60.3 \mu M$ ). Increases apoptosis in human cancer cell lines. Reduces senescence and increases lifespan in mouse models of ageing (kl/kl). Inhibits L-NAME (Cat.No. 0665) induced systolic blood pressure increases, telomere length reduction and cardiac hypertrophy in mice. Renoprotective. Orally bioavailable.

**Physical and Chemical Properties:**

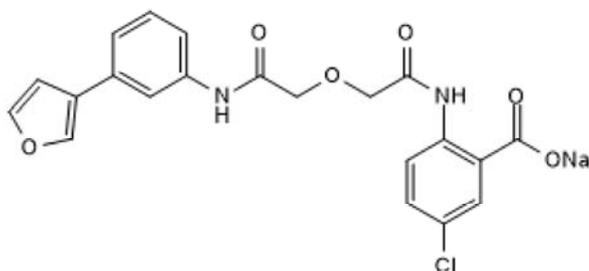
Batch Molecular Formula:  $C_{21}H_{16}ClN_2NaO_6 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 455.3

Physical Appearance: Light Beige solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

water to 5 mM with gentle warming

**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. 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:**

**Jeong et al** (2016) Novel plasminogen activator inhibitor-1 inhibitors prevent diabetic kidney injury in a mouse model. PLoS One. **11**. PMID: 27258009 .

**Placencio et al** (2015) Small molecule inhibitors of plasminogen activator inhibitor-1 elicit anti-tumorigenic and anti-angiogenic activity. PLoS One. **10**. PMID: 26207899.

**Eren et al** (2014) PAI-1-regulated extracellular proteolysis governs senescence and survival in Klotho mice. Proc.Natl.Acad.Sci.USA. **111** 7090. PMID: 24778222 .

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