

Print Date: Feb 15th 2022

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Product Name: NFPS Catalog No.: 2789 Batch No.: 2

CAS Number: 405225-21-0

IUPAC Name: N-[3-([1,1-Biphenyl]-4-yloxy)-3-(4-fluorophenyl)propyl]-N-methylglycine

### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{24}FNO_3$ Batch Molecular Weight:393.45Physical Appearance:White solid

**Solubility:** DMSO to 10 mM

ethanol to 5 mM with gentle warming

Storage: Store at +4°C

Batch Molecular Structure:

# 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.58$  (Chloroform:Methanol [4:1])

**HPLC:** Shows 99.1% purity

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

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 73.26 6.15 3.56 Found 72.94 6.24 3.5

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# **Product Information**

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### **Description:**

NFPS is a selective, non-transportable inhibitor of GlyT1 which displays no activity at GABA or glutamate receptors (IC $_{50}$  values are 2.8, 9.8 and 56000 nM for hGlyT1, rGlyT1 and rGlyT2 respectively). Enhances the amplitude of the NMDA component of glutamatergic EPSCs. R-enantiomer also available.

### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>24</sub>H<sub>24</sub>FNO<sub>3</sub> Batch Molecular Weight: 393.45 Physical Appearance: White solid

Minimum Purity: ≥98%

### **Batch Molecular Structure:**

Storage: Store at +4°C

## Solubility & Usage Info:

DMSO to 10 mM

ethanol 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:

**Harsing Jr.** *et al* (2003) The glycine transporter-1 inhibitors NFPS and Org 24461: a pharmacological study. Pharmacol.Biochem.Behav. **74** 881.

**Mallorga** *et al* (2003) Pharmacology and expression analysis of glycine transporter GlyT1 with [³H]-(*N*-[3-(4'-fluorophenyl) -3-(4'phenylphenoxy)propyl])sarcosine. Neuropharmacology **45** 585. PMID: 12941372.

Bergeron et al (1998) Modulation of N-MthD.-aspartate receptor function by glycine transport. Proc.Natl.Acad.Sci.USA 95 15730.