

Certificate of Analysis

Print Date: Feb 10th 2023

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Product Name: RuBi GABA trimethylphosphine Catalog No.: 4709 Batch No.: 6

IUPAC Name: (bis(2,2'-Bipyridine-N,N')trimethylphosphine)-4-aminobutyric acid ruthenium complex sodium hexafluorophosphate

salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₃₃N₅O₂PRu.PF₆.NaPF₆

Batch Molecular Weight: 904.56

Physical Appearance: Orange solid
Solubility: water to 50 mM
Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

¹H NMR: Consistent with structure



Product Information

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IUPAC Name:

(bis(2,2'-Bipyridine-N,N')trimethylphosphine)-4-aminobutyric acid ruthenium complex sodium hexafluorophosphate

salt

Description:

RuBi GABA trimethylphosphine is a modified version of RuBi-GABA (Cat. No. 3400). Suppresses cortical local field potential (LFP) activity in anesthetized mice after activation with a blue laser pulse (473 nm); inhibits neural activity.

Physical and Chemical Properties:

 $Batch\ Molecular\ Formula:\ C_{27}H_{33}N_5O_2PRu.PF_6.NaPF_6$

Batch Molecular Weight: 904.56 Physical Appearance: Orange solid

Batch Molecular Structure:

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 50 mM

CAUTION: RuBi-GABA is light sensitive and all experiments should be conducted with minimal light.

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.

Licensing Information:

Sold under licence from Columbia University

References:

Filevich *et al* (2013) RuBiGABA-2: a hydrophilic caged GABA with long wavelength sensitivity. Photochem.Photobiol.Sci. *12* 1565. PMID: 23674097.

Lopes-dos-Santos et al (2011) In vivo photorelease of GABA in the mouse cortex. Braz.J.Med.Biol.Res. 44 688. PMID: 21755263.