

Product Name: **2A3**

Catalog No.: **7376**

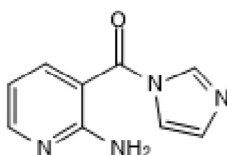
Batch No.: **3**

CAS Number: 2765091-45-8

IUPAC Name: (2-Aminopyridin-3-yl)(1H-imidazol-1-yl)methanone

## 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C <sub>9</sub> H <sub>8</sub> N <sub>4</sub> O
Batch Molecular Weight:	188.19
Physical Appearance:	White solid
Solubility:	DMSO to 100 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



## 2. ANALYTICAL DATA

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

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

**Product Name:** 2A3

**Catalog No.:** 7376

**Batch No.:** 3

CAS Number: 2765091-45-8

IUPAC Name: (2-Aminopyridin-3-yl)(1H-imidazol-1-yl)methanone

**Description:**

2A3 is an electrophilic chemical probe that acylates the 2'-OH in the RNA backbone. 2A3 can be used for RNA SHAPE-MaP experiments in cell lines or live bacteria. It labels single-stranded or flexible regions more than folded regions (SHAPE methodology) and enables analysis of RNA secondary structures at single nucleotide resolution. For intracellular experiments, 2A3 has higher signal-to-noise ratio and prediction accuracy than NAI (Cat. No. 7004). 2A3 is cell permeable, and can probe both gram-positive and gram-negative bacteria.

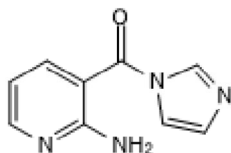
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>9</sub>H<sub>8</sub>N<sub>4</sub>O

Batch Molecular Weight: 188.19

Physical Appearance: White solid

**Batch Molecular Structure:**



**References:**

**Marinus et al** (2021) A novel SHAPE reagent enables the analysis of RNA structure in living cells with unprecedented accuracy. *Nucleic Acids Res.* **49** e34. PMID: 33398343.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 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.

**Licensing Information:**

Sold with kind permission of Dr Danny Incarnato

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956