

Product Name: **2A3**

Catalog No.: 7376

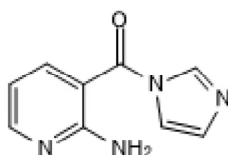
Batch No.: 2

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 ₉ H ₈ N ₄ 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

¹ 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

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2

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.

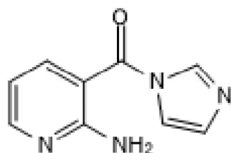
Physical and Chemical Properties:

Batch Molecular Formula: C₉H₈N₄O

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

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