

**Product Name:** FAI

**Catalog No.:** 8011

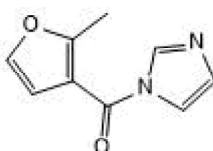
**Batch No.:** 1

CAS Number: 1415238-77-5

IUPAC Name: 1*H*-Imidazol-1-yl(2-methyl-3-furanyl)methanone

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>9</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 176.17  
**Physical Appearance:** White crystalline 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

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**Description:**

FAI is a reagent for RNA SHAPE-MaP experiments in live cells. Can be used to map RNA structures in vivo by forming stable 2'-OH adducts with RNA, blocking reverse transcriptase elongation. In vitro, FAI activity can be quenched with Dithiothreitol (Cat. No. 3154) and can be used to probe the secondary structure of mouse embryonic stem cell 5S rRNA. At elevated temperatures, FAI forms more stable adducts and exhibits less hydrolysis than NAI (Cat. No 7004).

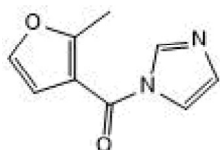
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**References:**

**Chan et al** (2017) Comparative analysis reveals furoyl in vivo selective hydroxyl acylation analyzed by primer extension reagents form stable ribosyl ester adducts. *Biochemistry* **56** 18111. PMID: 28319368.

**Spitale et al** (2013) RNA SHAPE analysis in living cells. *Nat.Chem.Biol.* **9** 18. PMID: 23178934.

**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.

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