

# APPLICATIONS

## HPLC Column Screening for Favipiravir on Six Different 100 x 4.6 mm Columns

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### Overview

Favipiravir, a pyrazinecarboxamide derivative, is an antiviral medication discovered by Toyoma Chemical (Fujifilm Group) and approved for use in Japan to treat resistant cases of influenza. Currently Favipiravir is also being studied in various clinical trials globally as a potential treatment for COVID-19.

Initial column screening was carried out using gradient conditions (5% B for 0.5 minutes, to 95% B over 10 minutes); however, due to lack of significant differences in retention, we elected to run under isocratic conditions to highlight the differences in retention across the six different stationary phases.

Favipiravir was retained well on all six columns; however, the best peak shapes were obtained with the Luna C18(2), Kinetex C18, and Luna Omega PS C18 columns.

### LC-UV Conditions

**Columns:** Luna® 3 µm C18(2) - [OOD-4251-E0](#)  
Kinetex® 2.6 µm C18 - [OOD-4462-E0](#)  
Luna Omega 3 µm PS C18 - [OOD-4758-E0](#)  
Luna Omega 3 µm Polar C18 - [OOD-4760-E0](#)  
Kinetex 2.6 µm Biphenyl - [OOD-4622-E0](#)  
Kinetex 2.6 µm F5 - [OOD-4723-E0](#)

**Dimension:** 100 x 4.6 mm

**Mobile Phase:** Isocratic (95:5)

A: 0.1% Formic Acid in Water

B: 0.1% Formic Acid in Acetonitrile

**Flow Rate:** 1.0 mL/min

**Temperature:** 30 °C

**Detector:** UV @ 360 nm

**Injection:** 10 µL

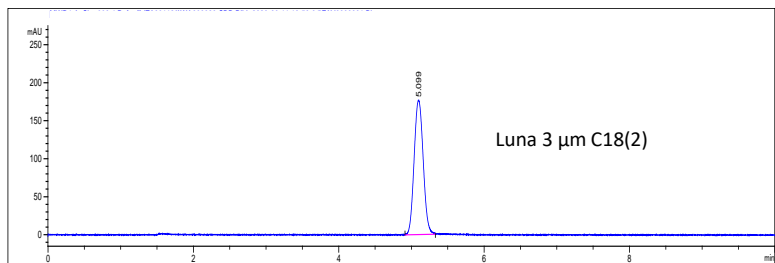
**Run Time:** 10 minutes

**Sample:** Favipiravir (500 µg/mL)

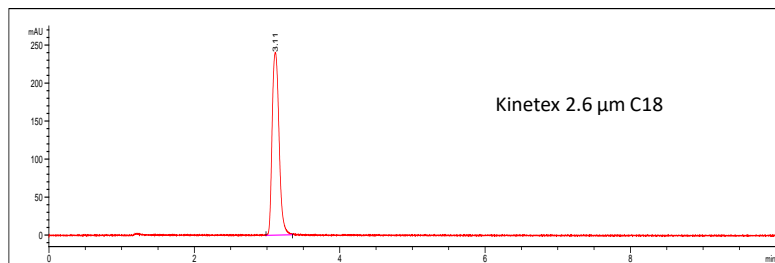
### Summary of Results

Column	RT, min	Peak Tailing
Luna 3 µm C18(2)	5.099	1.08
Kinetex 2.6 µm C18	3.114	1.29
Luna Omega 3 µm PS C18	4.838	1.23
Luna Omega 3 µm Polar C18	2.747	1.40
Kinetex 2.6 µm Biphenyl	3.523	1.43
Kinetex 2.6 µm F5	3.557	1.46

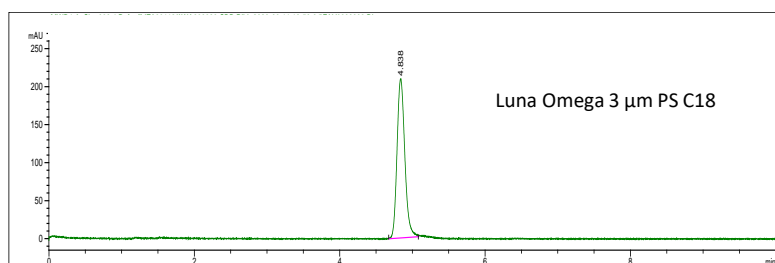
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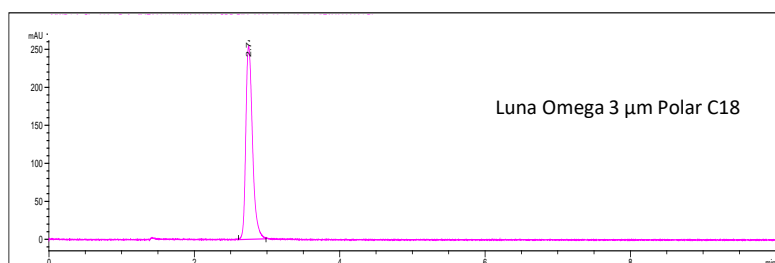
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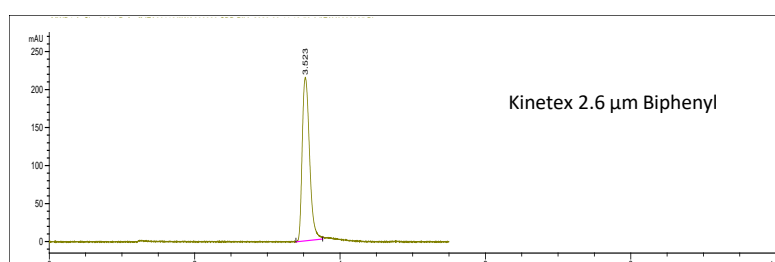
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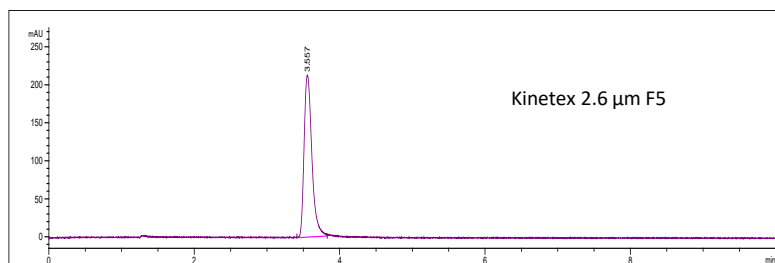
App ID 25928



App ID 25929



App ID 25930



App ID 25931

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 Luna Omega 3 µm PS C18 - [OOD-4758-E0](#)  
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**Sample:** Favipiravir (500 µg/mL)

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