

Anti-Covid molecule GRL0617 assay with HPLC - AppNote

GRL-0617, a benzamide anti-Covid molecule and potent non-covalent inhibitor

This simple gradient analyzing GRL-0617 is easily performed and the 5 injections overlay below demonstrates run to run consistency and great peak symmetry. The peak efficiency is very good, peak tailing is minimal, and repeatability is easily met with RSD values being less than 1.0%.



Peak:

GRL0617

Method Conditions:

Column: Cogent RP Phenyl Hexyl™, 5µm, 100Å

Catalog No.: 68539-15P

Dimensions: 4.6mm x 150mm

Mobile phase:

A: DI water and 0.1% formic acid

B: Acetonitrile and 0.1% formic acid

Gradient:

time (minutes)	%B
0	25
1	25
5	85
6	85
8	25
10	25

Flow rate: 1.0mL / minute

Injection volume: 1 μ L

Detection: UV @ 224nm

Sample Preparation: 1.0 mg/mL of GRL-0617 in methanol.

%RSD: <0.5%

t₀: 2.0 minutes

K': 2.075

Note 1: GRL0617 is an inhibitor of SARS-CoV and SARS-CoV-2 papain-like proteases (PL-pro). It is selective for the viral proteases over human proteases. GRL0617 blocks both PL-pro-mediated actions towards host biological processes and virus replication.



Note 2: Capacity is determined using the following equation: $k = (t_R - t_0)/t_0$

- t_R = Retention Time of an Analyte Peak
- t_0 = Retention Time of non-Retained Peak

