

# HCV Mini Purification Kit

(Catalog # K1309-10, -20)

## I. Introduction:

The hepatitis C virus (HCV) mini purification kit is designed for fast and efficient purification of HCV from HCV infected cell culture, plasma or whole blood.

**II. Sample Type:** For fast and efficient purification of HCV from HCV infected cell culture, plasma or whole blood.

## III. Kit Contents:

	K1309-10	K1309-20	Part Number
	10 preparations	20 preparations	
Mini Columns	10	20	K1309-XX-1
Collection Tube	20	40	K1309-XX-2
10X Binding Buffer	10 mL	20 mL	K1309-XX-3
1X Binding Buffer	4 mL	8 mL	K1309-XX-4
1X Wash Buffer	12.5 mL	25 mL	K1309-XX-5
1X Elution Buffer	10 mL	20 mL	K1309-XX-6

## IV. User Supplied Reagents and Equipment:

- ddH<sub>2</sub>O
- Standard TC centrifuge
- 0.45 µm filter unit
- Rack holder for column

## V. Shipment and Storage:

All the reagents are shipped at room temperature. Except the mini columns, which is stored at 4°C, all other components are stored at room temperature. The guaranteed shelf life is 12 months from the date of purchase. **DO NOT FREEZE!**

## VI. HCV Purification Protocol:

**The HCV virus infected cell media and the purified virus can be potential biohazardous material and can be infectious to human and animals. All protocols must be performed under at least Bio-Safety level 2 working condition.**

### 1. HCV Infected Sample Preparation:

The HCV infected sample, such as infected cell culture, plasma or whole blood, can be processed as follows:

- Add 1 volume of 10X Binding Buffer to 9 volumes of HCV infected sample and mix well.
- Release the HCV viral particles from the HCV infected sample with three freeze/thaw cycles between dry ice-ethanol and 37°C water bath.
- Centrifuge at 3,000 rpm for 10 min to pellet the cell debris. Harvest the HCV viral supernatant and discard the pellet. If large amount of cell debris is still visible, centrifuge the supernatant again and save the HCV viral supernatant.
- The HCV viral supernatant can be stored at -80°C or immediately purified as follows.

### 2. Mini Spin Protocol for HCV Purification:

- Prior to application of the HCV viral supernatant to the Mini Column, the viral supernatant is to be clarified by passing through a 0.45 µm filter.
- Add 400 µL of 1X Binding Buffer to pre-wet the mini column in a Collection Tube. Centrifuge in a microcentrifuge at 2,000g for 5 min. Empty the Collection Tube.
- Load 200 µL (up to 400 µL) of HCV viral supernatant into the Filter Column and centrifuge at 2,000g for 5 min. Empty the flow-through from the Collection Tubes (save the flow-through to make sure the HCV viruses are purified in the final elution). *Note: Repeated sample loading can be performed if the HCV-infected sample contains low level of HCV viral particles.*
- Load 400 µL of 1X Wash Buffer into the Filter Column and centrifuge at 2,000g for 5 min. Empty the wash-through from the Collection Tube. Repeat the wash step one more time (save the wash-through to make sure the HCV viruses are purified in the final elution).
- Transfer the Mini Column to a fresh Collection Tube. Load 200 µL (up to 400 µL) of 1X Elution Buffer into the Column and centrifuge at 2,000g for 5 min.
- The purified HCV viral particles from the elution are ready for further processing or analyses, such as HCV viral RNA purification, immunochemical testing, etc.
- For storage before further processing, add glycerol to a final concentration of 10% to the purified HCV solution or dialyze the viral solution into a desired buffer solution. (Optionally, sterilize the purified viral solution by passing through a 0.2 µm sterile filter.) Store the final purified virus solution at -80°C for further analyses.

**VII. Related Products:**

<b>Products/Catalog Number</b>
Adenovirus Mini Purification Kit # K1300-10, -20
Adenovirus Maxi Purification Kit # K1301-2, -4, -10
Adeno-associated Virus Mini Purification Kit # K1302-10, -20
Adeno-associated Virus Maxi Purification Kit # K1303-2, -4, -10
Adeno-associated Virus Mini Purification Kit, all serotypes # K1304-10, -20
Adeno-associated Virus Maxi Purification Kit, all serotypes # K1311-2, -4, -10
Lentivirus Mini Purification Kit # K1305-10, -50
Lentivirus Maxi Purification Kit # K1306-2, -4, -10
Retrovirus Mini Purification Kit # K1307-10, -20
Retrovirus Maxi Purification Kit # K1308-2, -4, -10
HCV Mini Purification Kit # K1309-10, -20
HCV Maxi Purification Kit # K1310-2, -4, -10

*FOR RESEARCH USE ONLY! Not to be used on humans.*