



## chemagic Viral DNA/RNA Kit *for research only*

*Simultaneous isolation of viral DNA and RNA from serum or plasma*

### Kit Components

<b>Lysis Buffer 1</b>	20 ml
<b>Binding Buffer 2</b>	60 ml
<b>Wash Buffer 3</b>	50 ml
<b>Wash Buffer 4</b>	50 ml
<b>Wash Buffer 5</b>	55 ml
<b>Elution Buffer 6</b>	10 ml
<b>Magnetic Beads</b>	3 ml
<b>Poly(A) RNA</b>	400 µg
<b>Poly(A) RNA Buffer</b>	500 µl
<b>Protease</b>	20 mg

The **Elution Buffer** is 10 mM Tris-HCl pH 8.0; it is also possible to use TE buffer pH 8.0.

This kit contains materials for 100 isolations from 200 µl serum or plasma and is optimized for use with **chemagic** Magnetic Separators.

**Completion time:** Approximately 45 minutes

### Required Materials

- Magnetic Particle Separator
- Incubator at 55 °C



## Buffer Preparation and Storage Conditions

- Store **Lysis Buffer 1** in the dark.
- **Lysis Buffer 1** may form a precipitate upon storage. If necessary, warm to 40 °C to redissolve.
- It is possible to premix **Lysis buffer 1** and **Poly(A) RNA**. You should take into account that it's not recommended to warm the buffer containing the **Poly(A) RNA** more than 6 times.
- Dissolve the lyophilized **Poly(A) RNA** by adding 440 µl of the **Poly(A) RNA buffer** to the **Poly(A) RNA** tube and mix thoroughly.
- Lyophilized **Poly(A) RNA** and **Protease** are stable for 1 year at room temperature.
- Dissolved **Poly(A) RNA** in **Poly(A) RNA buffer** must be stored at 4 °C and is then stable for up to 6 months.
- Dissolve lyophilized **Protease** in A. dest (see instruction on the tube).
- Dissolved **Protease** should be stored at 4 °C.



## Purification Protocol from 200 µl of Serum, Plasma or Blood

1. In a microfuge tube place 10 µl **Protease**, 4 µl **Poly(A) RNA** and 200 µl **Lysis Buffer 1** (see **Buffer Preparation**). Add 200 µl sample, mix well and then incubate 10 minutes at 55 °C.
2. Add 30 µl resuspended **Magnetic beads** and 600 µl **Binding Buffer 2**. Mix with 6 pipetting strokes and incubate 5 minutes at room temperature.
3. Following incubation, place the tube in a Magnetic Separator to draw the beads to the side of the tube for 2 minutes. Pipette off the supernatant and then remove the tube from the magnet.
4. Add 500 µl **Wash Buffer 3** to the tube. Resuspend the beads by pipetting and leave 1 minute. Separate the beads using the Magnetic Separator and discard supernatant.
5. Repeat the washing procedure using **Wash Buffer 4**.
6. Separate the beads magnetically and remove the supernatant. Then, while leaving the tube in the Magnetic Separator, and the beads attracted to the side of the tube, gently add 550 µl of **Wash Buffer 5**, being careful not to disrupt the pellet. Pipette off all **Wash Buffer 5** one minute after addition.
7. Add 50 µl (or another suitable volume) of **Elution Buffer 6** to the tube and resuspend the beads by pipetting.
8. Incubate the suspension for 5 minutes at 55 °C, with gentle agitation to facilitate complete DNA/RNA elution.
9. Following DNA/RNA elution place the tube in the Magnetic Separator for 1 minute to separate all the beads from solution. Remove the eluate containing the purified viral DNA to a clean tube.