


DIAGNOSTICS FOR HANTAVIRUS INFECTIONS




Reagent is a pioneer in rapid diagnostics for zoonotic diseases and an undisputed leader in Hantavirus rapid diagnostics. Reagent offers test kits for reliable detection of Hantavirus strain-specific antibodies to Puumala and Dobrava or Hantaan virus infections in human serum or plasma. The product portfolio includes Enzyme Immunoassays (EIA) and Lateral Flow rapid tests, including the ReaScan® reader and cassettes.

ReaScan® rapid tests


Rapid tests based on the ReaScan technology enable very high levels of sensitivity and specificity. The test line intensity is read by the ReaScan reader, which reports the result as a numerical value. Total analysis time is only 15 minutes. Test result is read in seconds with ReaScan reader.



Transfer the diluted sample into the conjugate vial and mix carefully.



Transfer the conjugate sample mixture into the test cassette's sample well.



Start the timer, wait for 15 minutes, and read the results with the ReaScan reader.

ReaScan PUUMALA IgM	
Lot specific cut-off values	
Lot: SF01/1	
Value	Result
< 15	NEGATIVE
15 – 30	EQV
> 30	POSITIVE

Interpret the result according to the lot specific cut-off values.

ReaScan® PUUMALA IgM and ReaScan® DOBRAVA-HANTAAN IgM are lateral flow rapid tests for detection of acute Hantavirus infections in human serum or plasma. ReaScan® Ab-Dect PUUMALA IgG detects Puumala virus specific IgG antibodies in blood of bank voles (*Myodes glareolus*).

Product	Test performance	Packaging	Ref. number
ReaScan PUUMALA IgM	Specificity 99% Sensitivity 98%	10 tests	114101
ReaScan DOBRAVA-HANTAAN IgM	Specificity 97% Sensitivity 95%	10 tests	114102
ReaScan Ab-Dect PUUMALA IgG	For research use only		114109

Sensitivity and specificity of each test was obtained when evaluating test performance with panels of confirmed patient samples.

Reagent POC® rapid test

Reagent POC® PUUMALA IgM is the easiest and fastest solution for the detection of acute Puumala virus infection. The visual test is very easy to use and extremely fast, still offering very good performances in terms of sensitivity and specificity. The test detects Puumala virus specific IgM antibodies from serum, plasma or fingertip blood. Total analysis time is only 10-15 minutes. Test result is read visually.

Product	Test performance	Packaging	Ref. number
Reagent POC PUUMALA IgM	Specificity 98% Sensitivity 93%	10 tests	114001

Sensitivity and specificity was obtained when evaluating test performance with panels of confirmed patient samples.

Reagent EIA

Reagent PUUMALA EIA and Reagent DOBRAVA-HANTAAN EIA are enzyme immunoassays for detection of Puumala and Dobrava or Hantaan virus specific antibodies from human serum. Reagent PUUMALA EIA is also available for automated EIA analyzers. The assays are performed at room temperature and the total incubation time is 2.5 hours.

Product	Test performance	Packaging	Ref. number
Reagent PUUMALA IgM EIA	Specificity 100% Sensitivity 99%	96 wells 3 x 4 test strips (8 wells)	114201
Reagent PUUMALA IgG EIA	Specificity 97% Sensitivity 96%	96 wells 3 x 4 test strips (8 wells)	114301
Reagent PUUMALA IgM EIA AutoM	Specificity 100% Sensitivity 99%	96 wells 3 x 4 test strips (8 wells)	114201B
Reagent PUUMALA IgG EIA AutoM	Specificity 97% Sensitivity 96%	96 wells 3 x 4 test strips (8 wells)	114201B
Reagent DOBRAVA-HANTAAN IgM EIA	Specificity 99% Sensitivity 99%	96 wells 3 x 4 test strips (8 wells)	114202
Reagent DOBRAVA-HANTAAN IgG EIA	Specificity 99% Sensitivity 99%	96 wells 3 x 4 test strips (8 wells)	114302

Sensitivity and specificity of each test was obtained when evaluating test performance with panels of confirmed patient samples.

Hantaviruses

Hantaviruses are rodent-borne viruses causing clinical illness of varying severity in humans. Currently, over 20 different hantaviruses have been identified worldwide to be human pathogens. Each hantavirus is specific to a different rodent host. Transmission of the virus to humans occurs through the inhalation of infected rodent urine, droppings, or saliva.

The most common European hantavirus disease is caused by Puumala hantavirus, carried by the bank vole (*Myodes glareolus*). The virus is widespread across most of the European continent.

Dobrava hantavirus, carried by the yellow-necked mouse (*Apodemus flavicollis*), is found only in south-east Europe, as far as the Czech Republic and southernmost Germany.

The clinical features in patients with hantavirus disease are quite variable, from asymptomatic to severe. The incubation period is relatively long, mostly 2–3 weeks, but possibly up to six weeks.

Ref.: *European Centre for Disease Prevention and Control, Hantavirus infection fact sheet*