

# Tomato Brown Rugose Fruit Virus (ToBRFV)



## Intended use

The rapid test "ToBRFV AgriStrip<sup>cassette</sup>" enables to detect on-site the presence of ToBRFV, also known as "Jordan virus", in suspicious samples within minutes (Fig. 4\*). ToBRFV belongs to the genus Tobamovirus and causes various symptoms such as yellow or brown, wrinkled spots on fruit, narrowing and mosaic discoloration of leaves, and deformed or irregularly ripened fruit. ToBRFV host plants are mainly tomatoes (*Solanum lycopersicum*) and peppers (*Capsicum* spp.). ToBRFV is on the EPPO-A2 list of pests, recommended for regulation as a quarantine pest since September 2020.

## Specificity and sensitivity

The polyclonal antibodies used for the rapid test "ToBRFV AgriStrip<sup>cassette</sup>" were developed against a ToBRFV isolate from tomato (Germany). All isolates of ToBRFV tested so far can be detected (isolates from locations in Germany, Italy, the Netherlands, Switzerland, and Israel). The rapid test is suitable for detecting ToBRFV in plant leaves and fruits and is not recommended for seeds. The ideal dilution of the samples is between 1:40 and 1:80. Slight cross-reactions with the Tobamoviruses ToMV and TMV have been observed. Cross-reactivity with other Tobamoviruses cannot be excluded. No cross-reactivity was observed with the Tobamoviruses CGMMV and PMMoV. We recommend to confirm positive results by a more sensitive assay such as the BIOREBA qPCR ToBRFV set (Art. No. 889200, 889600). The product is based on antibodies developed by the Leibniz Institute DSMZ GmbH, Braunschweig, Germany.

## Instructions for use

1. Put about 0.2 g of the leaf or fruit (corresponds to about the size of a 1-Euro coin) into the provided homogenization tube containing 8 ml of extraction buffer (Fig. 1\*).
2. Crush and homogenize the plant tissue by shaking the tube thoroughly by hand (20-30 seconds) until the exiting plant sap is well mixed with the extraction buffer (Fig. 2\*).
3. Insert a dropper tip into the tube (Fig. 3\*) and squeeze 4 drops of the extract onto the sample spot of the rapid test cassette (Fig. 4\*).
4. Observe the color development of the lines, which reach their maximum after 15-20 minutes, and perform the evaluation.

\*Pictures refer to the document «Technical Information – AgriStrip<sup>cassette</sup>»

## Ordering Information

Product	Art. Nr.	Assays
ToBRFV AgriStrip <sup>cassette</sup> kit	152881NF	5

## Feedback

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