

# ViroReal® Kit Swine Influenza A (SIV)



For veterinary use only

## ViroReal® Kit Swine Influenza A (SIV)

| Order no. | Reactions | Pathogen    | Internal positive control |
|-----------|-----------|-------------|---------------------------|
| DVEV00413 | 100       | FAM channel | Cy5 channel               |
| DVEV00453 | 50        | FAM channel | Cy5 channel               |
| DVEV00411 | 100       | FAM channel | VIC/HEX channel           |
| DVEV00451 | 50        | FAM channel | VIC/HEX channel           |

### Kit contents:

- Detection assay for SIV
- Detection assay + target for internal RNA positive control (control of RT-PCR amplification and/or RNA extraction)
- RNA reaction mix
- Nuclease-free water
- Positive control (RNA) for SIV



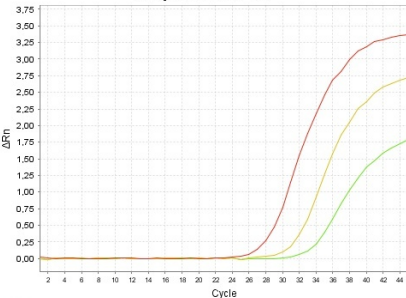
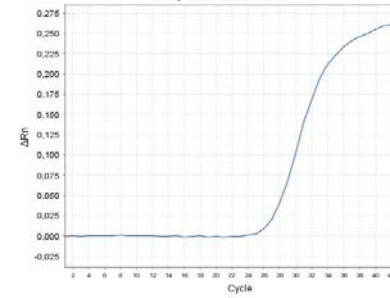
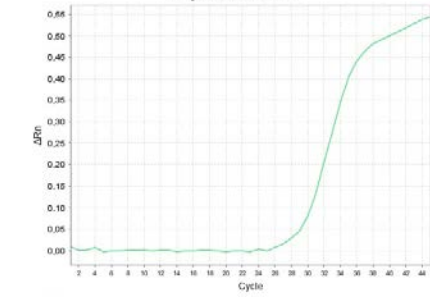
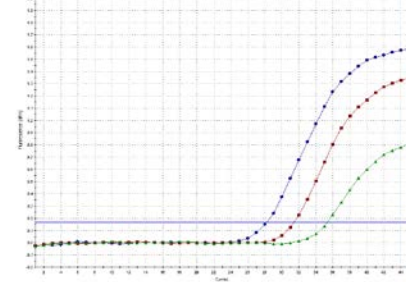
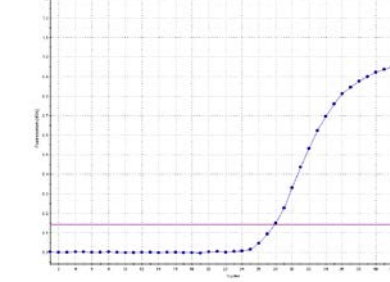
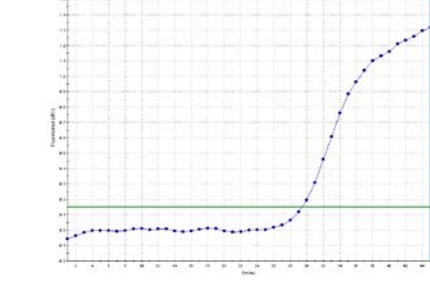
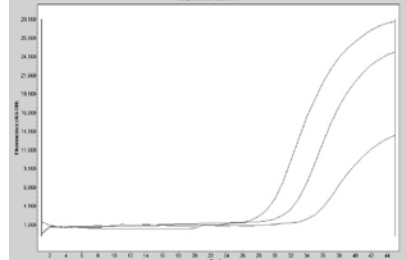
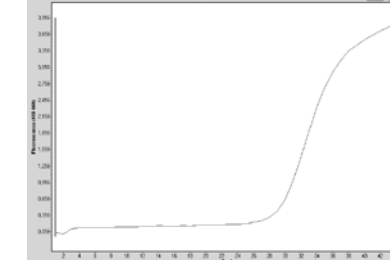
**Background:** Swine Influenza is an acute, febrile respiratory disease of swine with high morbidity and low mortality. In the industry it is commonly known as Swine Flu, Hog Flu, and Pig Flu. It is caused by the influenza virus, mainly influenza type A, an enveloped virus with single-stranded, segmented RNA with negative polarity as genome. Influenza A virus infects a wide variety of warm-blooded animals including pigs, birds, horses as well as humans.

**Description:** ViroReal® Kit Swine Influenza A (SIV) is based on the amplification and detection of the matrix protein gene of the influenza A virus of warm-blooded animals including pigs, birds, horses as well as humans using one-step reverse transcription real-time PCR. It allows the rapid and sensitive detection of RNA of the influenza A virus from samples purified from nasal swabs, tracheal secretions, nasopharyngeal aspirates, bronchoalveolar lavages or lung biopsies (e.g. with the QIAamp Viral RNA Mini Kit (Qiagen) extraction methods).

**PCR-platforms:** ViroReal® Kit Swine Influenza A (SIV) is developed and validated for the ABI PRISM® 7500 instrument (Thermo Fisher Scientific), LightCycler® 480 (Roche) and Mx3005P® QPCR System (Agilent), but is also suitable for other real-time PCR instruments.

**Specificity and sensitivity:** ViroReal® Kit Swine Influenza A (SIV) has an analytical sensitivity of 10 target copies/PCR reaction. The limit of detection (LoD95 = smallest number of copies of target RNA which can be detected in 95% of cases) is 10.8 target copies/reaction and was determined by several replicates around the detection limit. This kit is specific for the influenza A virus and detects all influenza A virus isolates published in the NCBI database. The kit was tested on several field samples and SIV was correctly detected.

**References:** Van Reeth K. 2007. Avian and swine influenza viruses: our current understanding of the zoonotic risk. *Veterinary Research*. 38, 243–260.

| Detection of SIV   | Detection of internal RNA positive control IPC-3   | Detection of internal RNA positive control IPC-1   |
|--|--|--|
| <p><b>Amplification Plot</b></p>  | <p><b>Amplification Plot</b></p>  | <p><b>Amplification Plot</b></p>  |
| <p><b>ABI Prism® 7500:</b> FAM channel, 530 nm<br/>1:10 serial dilution of the SIV positive control</p>            | <p><b>ABI Prism® 7500:</b> Cy5 channel, 667 nm<br/>Detection of internal RNA positive control</p>                  | <p><b>ABI Prism® 7500:</b> VIC channel, 667 nm<br/>Detection of internal RNA positive control</p>                    |
|                                  |                                  |                                  |
| <p><b>Mx3005P®:</b> FAM channel<br/>1:10 serial dilution of the SIV positive control</p>                           | <p><b>Mx3005P®:</b> CY5 channel<br/>Detection of internal RNA positive control</p>                                 | <p><b>Mx3005P®:</b> HEX channel<br/>Detection of internal RNA positive control</p>                                   |
|                                 |                                 |  |
| <p><b>LightCycler® 480:</b> FAM channel<br/>1:10 serial dilution of the SIV positive control</p>                   | <p><b>LightCycler® 480:</b> Cy5 channel<br/>Detection of internal RNA positive control</p>                         |  |

**ViroReal®, BactoReal® and ParoReal Kits run with the same thermal cycling conditions.  
RNA and DNA material can be analysed in one PCR run.**

For further information on our products please visit our homepage ([www.ingenetix.com](http://www.ingenetix.com))