

## Datasheet: ICT9146

**BATCH NUMBER 166259**

|                      |                              |
|----------------------|------------------------------|
| <b>Description:</b>  | PYROPTOSIS FAM CASPASE-1 KIT |
| <b>Name:</b>         | PYROPTOSIS FAM CASPASE-1     |
| <b>Format:</b>       | FAM (Green Fluorescence)     |
| <b>Product Type:</b> | Kits                         |
| <b>Quantity:</b>     | 100 - 200 TESTS              |

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

|                    | Yes | No | Not Determined | Suggested Dilution            |
|--------------------|-----|----|----------------|-------------------------------|
| Flow Cytometry     | ▪   |    |                | Refer to Instructions for Use |
| Immunofluorescence | ▪   |    |                |                               |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

| Max Ex/Em | Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|-----------|-------------|---------------------|-------------------|
|           | FAM         | 494                 | 520               |

### Product Information

**Pyroptosis FAM Caspase-1 Kit** utilizes the popular FLICA technology to detect caspase-1 activation. FLICA probes are cell permeant non-cytotoxic. This kits contain the caspase-1 inhibitor reagent YVAD-FMK, which has the preferred binding sequence for caspase-1, Tyr-Val-Ala-Asp (YVAD) ([Chapman, 1992](#)). This preferred caspase-1 binding sequence is labeled with either FAM a green fluorescent dye and linked to a fluoromethyl ketone (FMK) reactive entity. Caspase-1 will not cleave the FLICA inhibitor probe; instead, it forms an irreversible covalent bond with the FMK group on the reagent and becomes inhibited from further enzymatic activity.

### Test Principle

To use FLICA, add directly to the cell culture medium, incubate, and wash. FLICA is cell-permeant and will efficiently diffuse in and out of all cells. If there is an active caspase-1 enzyme inside the cell, it will covalently bind with YVAD-FMK and retain the fluorescent signal within the cell. Unbound FLICA will diffuse out of the cell during the subsequent wash steps. Therefore, positive cells will retain a higher concentration of FLICA and fluoresce brighter than negative cells. There is no interference from

pro-caspases or inactive forms of the enzymes. After labeling with FLICA, cells can be counter-stained with other reagents and fixed or frozen. Cells labeled with YVAD-FMK can be counter-stained with reagents such as the red live/dead stains Propidium Iodide and 7-AAD. Nuclear morphology may be concurrently observed using Hoechst 33342 (included in the kit), a blue DNA-binding dye. Cells can be viewed through a fluorescence microscope or flow cytometer.

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**Reagents In The Kit** 4 vials of FAM-YVAD-FMK Reagent - lyophilized  
1 vial Nigericin - lyophilized  
10X Wash Buffer, 60 ml  
Fixative, 6 mL  
Hoechst Stain, 1 ml.

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**Instructions For Use** Instructions for use can be found at <https://www.bio-rad-antibodies.com/static/uploads/ifu/ict9145-6.pdf>

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**Storage** MULTIPLE STORAGE CONDITIONS APPLY ON ARRIVAL. Store the unopened kit (and each unopened component) according to the storage instructions on each component label. Store the Nigericin at -20°C. Once reconstituted the Nigericin stock should be used immediately or aliquoted and stored at -20°C for 12 months. Avoid repeated freezing and thawing.

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**Guarantee** Guaranteed until date of expiry. Please see product label.

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**Acknowledgements** FLICA is a trademark of Immunochemistry Technologies, LLC.

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**Health And Safety Information** Material Safety Datasheet documentation #20279 #20431 #20435 #10498 #10476 available at:  
<https://www.bio-rad-antibodies.com/SDS/ICT9146>  
FAM-YVAD-FMK Reagent (20279)  
Nigericin (20431)  
10X Cellular Wash Buffer (20435)  
Fixative (10498)  
Hoechst Stain (10476)

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**Regulatory** For research purposes only.

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

'M404818:220906'

Printed on 19 Jan 2024

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