

# Caspase 1 Staining Kit (Far Red) ab270784

## Overview

<b>Product name</b>	Caspase 1 Staining Kit (Far Red)
<b>Product overview</b>	<p>Caspases play important roles in apoptosis and inflammation. Caspase 1 Staining Kit (Far Red) are used by researchers seeking to quantitate apoptosis via caspase activity in cultured cells. The fluorescent 660-YVAD-FMK caspase-1 inhibitor reagent allows researchers to assess caspase activation.</p> <p>The fluorescent reagent 660-YVAD-FMK enters each cell and irreversibly binds to activated Caspase 1. Because the 660-YVAD-FMK reagent becomes covalently coupled to the active enzymes, it is retained within the cell, while any unbound 660-YVAD-FMK reagent diffuses out of the cell and is washed away. The remaining far red fluorescent signal is a direct measure of the active caspase enzyme activity present in the cell at the time the reagent was added. Cells that contain the bound 660-YVAD-FMK can be analyzed by fluorescence microscopy or flow cytometry. Cells labeled with the 660-YVAD-FMK reagent may be read immediately or preserved for 16 hours using the fixative. Unfixed samples may also be analyzed with Hoechst stain to detect changes in nuclear morphology.</p> <p>Produced using a non-baculovirus expression system.</p> <p>The target for this kit is Caspase 1.</p> <p><b>NOTE: The number of tests per kit depends on the application being tested. This kit provides 50 tests for flow and 25 for imaging.</b></p> <p>Activated caspase enzymes cleave proteins by recognizing a 3 or 4 amino acid sequence that must include an aspartic acid (D) residue in the P1 position. 660-YVAD-FMK caspase-1 inhibitor reagent contains the preferred binding sequence for caspase-1, Tyr-Val-Ala-Asp (YVAD). It should be noted that the YVAD binding sequence is also recognized by caspases 4 and 5. The YVAD binding sequence is labeled at the amino terminus end with a far-red fluorescent 660 dye and linked at the carboxyl end to a fluoromethyl ketone (FMK) reactive entity. The resulting cell permeant fluorescent molecule, 660-YVAD-FMK, optimally excites at 660 nm and emits between 685-690 nm. A conventional red HeNe laser with a 633 nm excitation provides excellent excitation efficiency, enabling cells labeled with 660-YVAD-FMK to be analyzed with most flow cytometers and fluorescence microscopes equipped with electronic grey scale image capabilities.</p> <p>Kits are available for other caspases:</p>

Poly Caspase Staining Kit (Far Red) ([ab270783](#))

Caspase 3/7 Staining Kit (Far Red) ([ab270785](#))

#### Tested applications

**Suitable for:** Flow Cyt, FM

#### Properties

#### Storage instructions

Store at +4°C. Please refer to protocols.

Components	50 tests
10X Cellular Wash Buffer	1 x 15ml
Fixative	1 x 6ml
660-YVAD-FMK caspase-1 inhibitor reagent	1 vial

#### Applications

#### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab270784 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration.
FM		Use at an assay dependent concentration.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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