IGG-PZF2667

VHH-Based Antibody Internalization Detection Reagent

Pack Size: 100 tests/500 tests

Catalog Number： IGG-PZF2667

IMPORTANT: Please carefully read this manual before performing your experiment.

For Research Use Only. Not For Use In Diagnostic Or Therapeutic Procedure

PRODUCT DESCRIPTION

Antibody Internalization Detection Reagent (IGG-PZF2667) utilizes a VHH single-domain antibody conjugated to a pH-sensitive fluorescent dye, specially engineered for acid-triggered signal amplification.

With its smaller molecular weight and low steric hindrance, this reagent specifically binds to the target region of antibodies to form a stable complex, enabling real-time monitoring of antibody endocytosis in live cells. The pH-sensitive dye not only significantly enhances the fluorescence signal in acidic endosomal environments but also effectively minimizes background noise, ensuring high sensitivity and accuracy for internalization detection.

SPECIFICITY

Human IgG Fc Region

LABEL TYPE

pH-Sensitive Dye

Excitation Wavelength: 643 nm

Emission Wavelength: 660 nm

STORAGE

For long-term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

-20°C to -70°C for 24 months in lyophilized state.

-20°C to -70°C for 3 months after reconstitution.

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Asia and Pacific: Tel: +86 400-682-2521
Web: http://www.acrobiosystems.com
E-mail: order@acrobiosystems.com

REQUIRED REAGENTS/EQUIPMENT NOT SUPPLIED

Cell Culture Medium

FACS Buffer

Whole IgG Primary Antibodies Suspension or Adherent Cell

96-well Plates

CO_2 Incubator Centrifuge

Instruments (Flow Cytometer, Fluorescence microscope)

PREPARE VHH-BASED ANTIBODY INTERNALIZATION DETECTION REAGENT STOCK SOLUTION

Reconstitute the lyophilized VHH-Based Antibody Internalization Detection Reagent with 60 µL(100 tests)/300 µL (500 tests) sterile deionized water to a stock solution (150 µg/mL). Solubilize for 30 minutes at room temperature with occasional gentle mixing. Avoid vigorous shaking or vortexing.

PROTOCOL FOR FACS OF SUSPENSION CELL

1. Prepare sufficient volume of 4 × working solution (40 nM) of primary antibody in cell culture medium and add 25 µL of 4 × antibody working antibody solution to each well of a 96-well plate.

2. Dilute the stock solution 50 times to prepare 4 × working solution (200 nM) of VHH-Based Antibody Internalization Detection Reagent and add 25 µL of 4 × reagent working solution to each well of the 96-well plate from Step 1. Incubate at room temperature for 10 minutes to allow the labeling complexes to form.

3. Prepare suspension cells at 2×10^6 cells/mL in cell culture medium.

4. Add 50 µL of cells to each well of the 96-well plate containing the labeling complexes (from Step 2). Incubate at 37℃ for 1-4 hours.

5. Harvest the cells, wash the cells 3 times by FACS buffer and resuspend the cells in 200 µL PBS.

6. Transfer the cell suspension into flow tube and detect the cells by Flow cytometry.

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