CYANAGEN

Reagents for Molecular Biology

NEW

THE RIGHT LIGHT

VIV-ON

Fixable Viability Dyes

FCM

www.cyanagen.com

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CERTIFICATION

ISO 9001 BUREAU VERITAS Certification

ACCREDIA

About us

Cyanagen is a biotech company located in Bologna, dedicated to research, development and production of reagents for molecular diagnostic since 2003 and one of the leading companies in the field of reagents for Western blotting and Elisa.
The main product lines are focused on chemiluminescence and fluorescent dyes for biological analysis, genomics, proteomics and chemical sensors.
They are based on Cyanagen internationally patented technologies and achieve outstanding performance in terms of sensitivity and stability.
The products are extremely versatile and perfectly suited to the latest analytical instrumentation. These products are also available as OEM.

Cyanagen s.r.l. has a certified Quality System

CERTIFICATION

Product manual

VIV-ON

Fixable Viability Dyes

VIV-ON ARE INTENDED FOR RESEARCH USE ONLY AND SHALL NOT BE USED IN ANY CLINICAL PROCEDURES OR FOR DIAGNOSTIC PURPOSES.

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1. Introduction

VIV-ON Fixable Viability Dyes are used to distinguish live cells from dead cells, based on cell membrane integrity.

VIV-ON Fixable Viability Dyes are amine reactive and membrane impermeable. Dead cells with permeable membranes are typically labelled to a higher extend due to reaction with intracellular amines resulting in highly fluorescent dead cells. Impermeable live cells are labelled only on the cell surface and show dim fluorescence.

The exclusion of dead cells from data allows a better identification of cell populations. VIV-ON Fixable Viability Dyes can be also used for determination of cell viability within samples after fixation and/or permeabilization.

VIV-ON Fixable Viability Dyes are available for the 405-, 488- and 633 nm laser lines, with detection in the common green, red and infrared channels.

Features:

- High brightness for optimal differentiation between live and dead cells
- Ready to use kit
- Unlike 7-AAD and PI, labelled cells can be fixed, permeabilized, washed and stained
- May be used for any cell species

2. Kit components

Kit components

- Vial A: VIV-ON Dye
- Vial B: VIV-ON FVD – DMSO, Cod. FV160,200

3. Properties

The following table summarizes the spectral properties of the VIV-ON Fixable Viability Dyes:

Dye	Excitation source (nm)	Emission (nm)
VIV-ON VIOLET 500 FVD	405	515
VIV-ON BLUE 520 FVD	488	523
VIV-ON RED 660 FVD	633	660
VIV-ON RED 780 FVD	633	780

Table 1: VIV-ON Fixable Viability Dye spectral properties.

Guidelines:

VIV-ON Fixable Viability Dyes are supplied as 2 vials formulation to ensure major stability. Protect from light and moisture. Pre-warm to room temperature and shortly centrifuge prior to use.

For optimal results, staining with VIV-ON Fixable Viability Dyes is best performed in azide-free and protein-free phosphate buffer saline (PBS).

VIV-ON Fixable Viability Dyes can be combined into any multi-colour experiment.

VIV-ON Fixable Viability Dyes are supplied as pre-diluted, nevertheless it is recommended to determine the optimal concentration and incubation time, as optimal dosage may vary with cell type and should be assessed empirically.

Storage conditions:
Protect from light. Store at -20°C with desiccant.

4. Protocol

General assay protocol:

Preparation of the **VIV-ON Fixable Viability Dye solution**: before the first use, add 100 µL of VIV-ON FVD – DMSO to the vial VIV-ON – Dye. Store the solution at -20°C.

1. Prepare cells as desired.
2. Wash cells twice in azide-free and protein-free phosphate buffer saline (PBS).
3. Resuspend cells at 1-10 x10^6 cells / mL in azide-free and protein-free phosphate buffer saline (PBS).

Note: For consistent staining it is not recommended to stain in less than 0.5 mL.

4. Stain cells by adding 1 µL of VIV-ON Fixable Viability Dye solution per 1 mL of cells and mix by vortexing.
5. Incubate cells for 30 minutes at 2-8 °C. Protect from light.
6. Wash cells twice in phosphate buffer saline (PBS) or any appropriate flow cytometry buffer.
7. Proceed with experiment, as desired.

5. Ordering information

PRODUCT	ORDER-NO.	UNIT SIZE
VIV-ON VIOLET 500 FVD	FVA126N	100 tests
VIV-ON BLUE 520 FVD	FVA127N	100 tests
VIV-ON RED 660 FVD	FVH128N	100 tests
VIV-ON RED780 FVD	FVL129N	100 tests

For further information visit **www.cyanagen.com**

For orders: call **+39 051.534063**
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Warranty Disclaimer at
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