Address: Avda. Universidad de Coimba, s/n
Cancer Research Center (C.I.C.)
Campus Miguel de Unamuno
37007 Salamanca (Spain)
Tel. / Fax: (+34) 923 294 827
E-mail: info@immunostep.com
www.immunostep.com

MitoStep™ + Apoptosis Detection Kit

Fluorochrome	Reference	Size
FITC	KMAF-100T	100 test
PE	KMAPE-100T	100 test

PRODUCT DESCRIPTION

Tested application: flow cytometry
Species reactivity: All mammalian
Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN_3).
Recommended usage: Immunostep's Annexin V, is intended for the identification and enumeration of apoptotic cells. This reagent is effective for direct immunofluorescence staining for flow cytometric analysis using $\leqslant 1 \times 10^5$ cells in 100 µl volume of Annexin V Binding Buffer.
Presentation: liquid
Reagent provided: 100 test (5µl/test)

Reference	Excitation laser Line (nm)	Max. Excitation peak (nm)	Max. Emission peak (nm)	Recommended Band Pass Filter (nm)
ANXVF-200T	488 Blue Laser	495	519	530/30
ANXVPE-200T	488,532,561 Blue Laser	496/564	578	585/42
7-AAD	488,532,561 Blue Laser	546	647	660/20
PI	488,532,561 Blue Laser	351	617	585/42
DiIC1(5)	595,633,635, 640,647 Red Laser	638	658	660/20

ANTIGEN DETAILS

Large description: Apoptosis is characterized by a variety of morphological features. One of the earliest indications of apoptosis is the translocation of the membrane phospholipid phosphatidylserine (PS) from the inner to the outer leaflet of the plasma membrane. Once exposed to the extracellular environment, binding sites on PS become available for Annexin V, Ca^{2+} -dependent, phospholipid binding protein with a high affinity for PS. The translocation of PS precedes other apoptotic processes such as loss of plasma membrane integrity, DNA fragmentation, and chromatin condensation. As such, Annexin V can be conjugated to biotin or to a fluorochrome, and used for the easy, flow cytometric identification of cells in the early stages of apoptosis.
Membrane potential (ΔΨ) is generated and maintained by concentration gradients of ions such as sodium, potassium, chloride, and hydrogen.
MitoStep uses a cationic dye DiIC1(5) (1,1´,3,3,3´-hexamethylindodicarbo-cyanine idodide) for the study of mitochondrial ΔΨ. During the apoptosis occurs depolarization of the membrane and as a result there is an increase in cells with less DiIC1(5) fluorescence.[1-7]

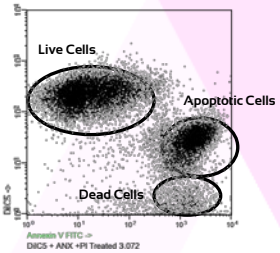

Figure 1. Jurkat cells (T-cell leukemia, human) treated with 6 µM camptothecin for four hours . The histogram is biparametric representations (DiI C5 versus Annexin V FITC).

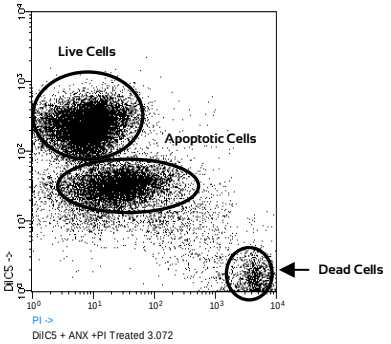

Figure 2. Jurkat cells (T-cell leukemia, human) treated with 6 µM camptothecin for four hours . The histogram is biparametric representations (DiI C5 versus PI).

Please, refer to www.immunostep.com technical support for more information.

WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties. Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

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MANUFACTURED BY

Immunostep S.L
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