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Diagnostik & molekulare Diagnostik



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Zuschläge

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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 (NaN₃).
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 ≤1 µg/10⁵ 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
DilCI(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, Ca²⁺-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 ($\Delta\Psi$) is generated and maintained by concentration gradients of ions such as sodium, potassium, chloride, and hydrogen. MitoStep uses a cationic dye DilCI(5) (1,1',3,3,3'-hexamethylindodicarbo-cyanine iodide) for the study of mitochondrial $\Delta\Psi$. During the apoptosis occurs depolarization of the membrane and as a result there is an increase in cells with less DilCI(5) fluorescence.⁽¹⁻⁷⁾

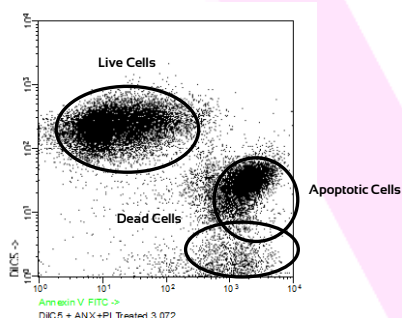


Figure 1. Jurkat cells (T-cell leukemia, human) treated with 6 µM camptothecin for four hours. The histogram is biparametric representations (Dil C5 versus Annexin V FITC).

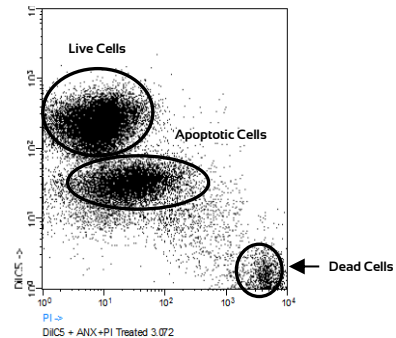


Figure 2. Jurkat cells (T-cell leukemia, human) treated with 6 µM camptothecin for four hours. The histogram is biparametric representations (Dil C5 versus PI).

Please, refer to <http://immunostep.com/content/31-support> for technical 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.

REFERENCES

- Fadok VA, Voelker DR, Campbell PA, Cohen JJ, Bratton DL, Henson PM. Exposure of phosphatidylserine on the surface of apoptotic lymphocytes triggers specific recognition and removal by macrophages. *J Immunol*1992 Apr 1;148(7):2207-16.
- Koopman G, Reutelingsperger CP, Kuijten GA, Keehnen RM, Pals ST, van Oers MH. Annexin V for flow cytometric detection of phosphatidylserine expression on B cells undergoing apoptosis. *Blood*1994 Sep 1;84(5):1415-20.
- Homburg CH, de Haas M, von dem Borne AE, Verhoeven AJ, Reutelingsperger CP, Roos D. Human neutrophils lose their surface Fc gamma RIII and acquire Annexin V binding sites during apoptosis in vitro. *Blood*1995 Jan 15;85(2):532-40.
- Vermes I, Haanen C, Steffens-Nakken H, Reutelingsperger C. A novel assay for apoptosis. Flow cytometric detection of phosphatidylserine expression on early apoptotic cells using fluorescein labelled Annexin V. *J Immunol Methods*1995 Jul 17;184(1):39-51.
- Darzynkiewicz Z, Bedner E, Traganos F. Difficulties and pitfalls in analysis of apoptosis. *Methods Cell Biol*2001;63:527-46.

6. Howard M. Shapiro. Membrane Potential Estimation by Flow Cytometry. *Methods* 21, 271-279 (2000).
7. Perez-Andres M, Benito JJ, Rodriguez-Fernandez E, Corradetti B, Primo D, Manzano JL, et al. Bisursodeoxycholate(ethylenediamine)platinum(II): a new autofluorescent compound. Cytotoxic activity and cell cycle analysis in ovarian and hematological cell lines. *Dalton Trans*2008 Nov 28(44):6159-64.
8. Herrero-Martin D, Osuna D, Ordonez JL, Sevillano V, Martins AS, Mackintosh C, et al. Stable interference of EWS-FLII in an Ewing sarcoma cell line impairs IGF-1/IGF-1R signalling and reveals TOPK as a new target. *Br J Cancer*2009 Jul 7;101(1):80-90.

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