

Kit	Storage of samples before assay
Cell Death Detection ELISA^{PLUS}	Purified cytoplasmic samples can be stored at -20°C for 2 weeks (with some reduction of signal)
Apoptotic DNA Ladder Kit	Purified DNA can be stored at -20°C for 1 year
Annexin-V-FLUOS Staining Kit; Annexin V-Biotin	Cells must be used live, directly after induction of apoptosis
Cellular DNA Fragmentation ELISA	Purified cytoplasmic samples can be stored at -20°C for at least 2 weeks

▲ **Table 19:** Storage of samples for apoptosis assay

1.2 Technical tips on the TUNEL method

1.2.1 TUNEL: Improvement and evaluation of the method for *in situ* apoptotic cell identification

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Note: This is a summary of an article that appeared in the *Biochemica* No. 2 (1997). For further experimental detail and background, see the full *Biochemica* article.

Summary: TUNEL or terminal deoxynucleotidyl transferase-mediated dUTP nick end-labeling, is a preferred method for rapid identification and quantification of the apoptotic cell fraction in cultured cell preparations. However, the accessibility of DNA breaks to enzymatic reactions is reduced by the nuclear protein environment (Kerrigan et al., 1987) and impaired by cell fixation (Gold et al., 1994) and postfixation (Gorczyca et al., 1994). Thus, several sample pretreatments have been devised to improve TUNEL sensitivity (Desjardins and MacManus, 1995; Kerrigan et al., 1987; Lucassen et al., 1995). An optimized TUNEL protocol for cultured cells has been developed.

