The Dead Cells Still Count™
CK18: A more sensitive and specific safety biomarker
For research use only

CK18 NEGATIVE
- Brain/CNS/Neurons
- Skin
- Muscles
- Connective Tissue
- Bone Marrow
- Blood

CK18 POSITIVE
- Lung +
- Breast +
- Kidney +
- Liver +
- Gut +
- Ovary +
- Prostate +

ELISAs and Antibodies for Apoptosis and/or Necrosis
M65® ELISA (research use only)
+ Catalog No. P10020, P10040 (96 well)

Apoptosis and Necrosis Detection
The M65® ELISA is the forerunner to the M65 EpiDeath® ELISA but both assays can be used to determine total epithelial cell death. Cell death mode (apoptosis or necrosis) can be determined by the combined use of the M65® ELISA and the M30 Apoptosense® ELISA.

Assay features:
+ Specific measurement of apoptosis and necrosis in epithelial cells (ie, hepatocytes)
+ Quantitative detection of CK18 fragments and total CK18 in human serum or plasma, in mouse/rat xenografts with human xenografts, in cell culture, or in spheroids
+ Can also be used with bovine and monkey samples
+ Minimal day-to-day fluctuations in normal samples (eg, no influence from muscle injury or overeating)
+ Minimal influence from rate of apoptosis and necrosis: End point measurement of accumulating cell death products
+ Remarkable sample stability: at least 9 months at -20°C, at least 2 years at -80°C; freeze-thawing is well-tolerated
+ Conventional, sandwich ELISA with precoated microplate, 12x8 wells; kit includes all necessary reagents

M30 Apoptosense® ELISA (research use only)
+ Catalog No. P10011 (96 well)

Apoptosis Detection
The M30 Apoptosense® ELISA is a unique biomarker assay that allows determination of epithelial cell apoptosis in blood samples. The assay is based on the unique M30® antibody which recognizes a neo-epitope of CK18 formed after caspase cleavage.

Assay features:
+ Specific measurement of apoptosis in epithelial cells (ie, hepatocytes)
+ Quantitative detection of CK18 fragments and total CK18 in human serum or plasma, in mouse/rat xenografts with human xenografts, in cell culture, or in spheroids
+ Can also be used with bovine and monkey samples
+ Minimal day-to-day fluctuations in normal samples (eg, no influence from muscle injury or overeating)
+ Minimal influence from rate of apoptosis: End point measurement of an accumulating cell death product
+ Remarkable sample stability: at least 9 months at -20°C, at least 2 years at -80°C; freeze-thawing is well-tolerated
+ Conventional, sandwich ELISA with precoated microplate, 12x8 wells; kit includes all necessary reagents

www.diapharma.com | 1 800 526 5224
**M30 CytoDeath™ ELISA (research use only)**
+ Catalog No. P10900 (96 well)

**Apoptosis Detection for Cell Culture**
The M30 CytoDeath™ ELISA is intended for cell culture applications. This assay is based on the unique M3O® antibody. The sensitivity and range of the assay have been optimized for in vitro applications (the assay is not suitable for serum/plasma samples). The M30 CytoDeath™ ELISA is a powerful drug screening tool and is useful for in vitro characterization of apoptosis-inducing drugs.

**Assay features:**
+ Specific measurement of apoptosis in cultured epithelial cells (ie, hepatocytes)
+ Quantitative detection of CK18 fragments in monolayer cell cultures, multicellular spheroids or organ cultures
+ Minimal influence from rate of apoptosis: End point measurement of accumulating cell death product
+ Can be used with human, monkey and bovine cell lines
+ Conventional, sandwich ELISA with precoated microplate, 12x8 wells; kit includes all necessary reagents
+ Reagents are ready-to-use and have a long shelf-life

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**M30 CytoDEATH™ and M5 and M6 Keratin Antibodies (research use only)**
+ Catalog No. P10600, P10650, P10700, P10750, P10800, and P10830 (~200 tests)

**Antibodies for Cell Death Research**
The M30 CytoDEATH™ antibody is used for the detection of epithelial cell apoptosis. It detects caspase-cleaved human, monkey and bovine CK18 (but not the mouse, rat or canine protein). The M30 CytoDEATH™ mouse monoclonal antibody is available unlabeled, conjugated with biotin or fluorescein, or with orange dye. The M5 and M6 Keratin 18 mouse monoclonal antibodies bind to CK18 for immunohistochemistry and for Western blotting.

**Antibody features (M30°):**
+ Specific measurement of apoptosis (caspase-cleaved CK18)
+ Detection by immunohistochemistry in formalin fixed paraffin-embedded or frozen tissue, flow cytometry or Western blotting
+ M3O° detects caspase-cleaved human, monkey and bovine CK18 (but not the mouse, rat or canine protein)

**Antibody features (M5 and M6):**
+ Specific measurement of cleaved and full length CK18
+ Detection by immunohistochemistry or Western blotting
+ M5 Keratin 18 is specific for the human and monkey protein, whereas M6 Keratin 18 also binds to mouse, rat and dog CK18

**M30®, Apoptosense®, M65®, EpiDeath® and PEVIVA® are a registered trademarks of VLVbio (Vivalavida AB).**
## ORDERING INFORMATION

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All kits are ready-to-use ELISAs containing plates, calibrators and controls.

All Products Are For Research Use Only