



PEVIVA

Product Line Overview



Your Toolbox for Apoptosis and Necrosis Measurement

PEVIVA

Product Line

Products
for accurate
quantification of
Apoptosis and
Necrosis



The PEVIVA Product Line is manufactured by VLVbio, a Swedish biotechnology company devoted to the manufacture, R&D and sale of unique bioassays and antibodies intended for

- non-invasive research of certain types of liver diseases*
- preclinical research on drug development
- rapid and non-invasive research of anti-cancer drug efficacy

VLVbio has, since the establishment of the company in 2000 (as Peviva AB), the exclusive rights to the M30 antibody. The M30 is a unique apoptosis marker for cells of epithelial origin, used in M30 Apoptosense® ELISA and M30 CytoDeath™ ELISA. The M30 antibody is also available as unlabelled or conjugated M30 CytoDEATH™ antibody intended for use with different biochemical methods like immunocytochemistry (ICC), flow cytometry (FACS), western blot (WB) and immunohistochemistry (IHC). In addition to already mentioned ELISA products, VLVbio offers the M65° ELISA and the M65 EpiDeath° ELISA. These two assays are based on two anti-keratin 18 mouse monoclonal antibodies (M5 and M6) measuring total cell death (apoptosis and necrosis) by quantifying cleaved and intact keratin 18.

*All VLV Bio products are for research use only in the US & Canada.

ELISA PRODUCTS



M30 Apoptosense® ELISA

(Prod. No P10011) For research use only

The M30 Apoptosense® ELISA measures the concentration of caspase-cleaved keratin 18 in human plasma, serum or cell culture supernatants, reflecting the amount of apoptosis. The assay is based on the unique M30 antibody, which recognizes a neo-epitope of keratin 18 formed after caspase cleavage. The assay can be combined with the M65® ELISA for the analysis of cell death mode (necrosis or apoptosis).

The M30 Apoptosense® ELISA is for research use only in the US and Canada. All reagents are provided in a convenient ready-to-use format.

Application Fields for M30 Apoptosense® ELISA:

- Hepatology: Research the level of hepatocyte apoptosis in subjects with liver diseases, e.g. NASH, AH, HCV and more
- Oncology: Research chemotherapy induced apoptosis in epithelial carcinoma
- Toxicology: Suitable when researching different pharmaceutical agents' impact on liver cell death, e.g. DILI or acute toxicity

Features of the M30 Apoptosense® ELISA:

- Specific measurement tool for apoptosis research in keratin 18 positive cells
- Suitable to use together with M65® ELISA for research of apoptosis, necrosis and total cell death
- Sandwich ELISA with a 96-well plate in a convenient ready-to-use format
- Can be split up for use at several occasions



M30 CytoDeath™ ELISA

(Prod. No P10900) For research use only

The M30 CytoDeath™ ELISA offers a unique possibility to measure apoptotic cells in multicellular spheroids and organ culture systems. The M30 CytoDeath™ ELISA is a product developed for cell culture applications, with a dynamic range and sensitivity suitable for in vitro work, making it a useful drug research tool.

Similar to the M30 Apoptosense® ELISA, the M30 CytoDeath™ ELISA is based on the M30 antibody, detecting the caspase-cleaved keratin 18. All reagents are provided in a convenient ready-to-use format.

Application Fields for M30 CytoDeath™ ELISA:

- Oncology: Research chemotherapy induced apoptosis in epithelial carcinoma
- Toxicology: Suitable for in vitro research of apoptosis-inducing drugs, including establishment of time course kinetics and dose-response relationships

Features of the M30 CytoDeath™ ELISA:

- Specific measurement tool for apoptosis research in keratin 18 positive cells
- Suitable for cell cultures and spheroids
- Sandwich ELISA with a 96-well plate in a convenient ready-to-use format
- Can be split up for use at several occasions

ELISA PRODUCTS



M65 ELISA

(Prod. No P10020) For research use only

The M65 ELISA measures soluble keratin 18 released from dying cells. It can be used to assess overall cell death, due to apoptosis and necrosis. M65 ELISA is intended for human serum or plasma.

The M65 ELISA is primarily intended to be used together with the M30 Apoptosense ELISA. When used together, the quantification of total cell death, apoptosis and necrosis is possible. As both assays are calibrated against the identical reference, the combination of M30 Apoptosense ELISA and M65 ELISA allows determination of the relative contribution of apoptosis to total cell death. All reagents are provided in a convenient ready-to-use format.

Application Fields for M65 ELISA:

- Hepatology: Research the level of total hepatocyte cell death in subjects with liver diseases, e.g. NASH, AH, HCV and more
- Oncology: Research chemotherapy induced cell death in epithelial carcinoma
- Toxicology: Suitable for research of cell death mode of hepatocytes due to pharmaceutical agents' impact

Features of the M65 ELISA:

- Specific measurement tool for total cell death research in keratin 18 positive cells
- Optimized for use together with M30 Apoptosense ELISA for research of apoptosis, necrosis and total cell death
- Sandwich ELISA with a 96-well plate in a convenient ready-to-use format
- Can be split up for use at several occasions



M65 EpiDeath ELISA

(Prod. No P10040) For research use only

The M65 EpiDeath ELISA measures the concentration of soluble keratin 18 in human plasma, serum and cell culture supernatants. The keratin 18 levels reflect the amount of total cell death, due to apoptosis or necrosis.

The M65 EpiDeath ELISA represents the next generation of keratin 18 positive bioassays. All reagents are provided in a convenient ready-to-use format.

Application Fields for M65 ELISA

- Hepatology: Research the level of total hepatocyte cell death in subjects with liver damage
- Toxicology: Suitable for researching different chemical or pharmaceutical agents' impact on hepatocyte cell death

Features of the M65 ELISA

- Specific research tool for total cell death quantification in keratin 18 positive cells
- Optimized for research of subjects with liver damage
- Sandwich ELISA with a 96-well plate in a convenient ready-to-use format
- Can be split up for use at several occasions

The PEVIVA Product Line can be used with blood samples, samples from cell cultures and spheroids or on xenografts to measure apoptosis, total cell death and the ratio between apoptosis and necrosis

Product	Apoptosis	Total Cell Death	Cell Cultures	Spheroids	Xenografts	Blood / Plasma Samples
M30 Apoptosense® ELISA	✓	—	✓	✓	✓	✓
M30 CytoDeath™ ELISA	✓	—	✓	✓	—	—
M65® ELISA	—	✓	✓	✓	✓	✓
M65 EpiDeath® ELISA	—	✓	✓	✓	✓	✓

M30:M65 Ratios Indicate Cell Death Mode

The ratios between M30 Apoptosense® ELISA (measuring caspase-cleaved keratin 18 [cck18]) and M65® ELISA (measuring total keratin 18) reflect the cell death mode. The amount of apoptosis (M30) is compared to the amount of total cell death (M65) by calculating the M30:M65 ratio. High M30:M65 ratios indicate that the cell death is mainly due to apoptosis. In contrast, low M30:M65 ratios suggest necrosis is the predominant cause of cell death.

MONOCLONAL ANTIBODY PRODUCTS

M30 CytoDEATH™ Antibody (Unlabelled, Biotin, Fluorescein, Orange)

For research use only

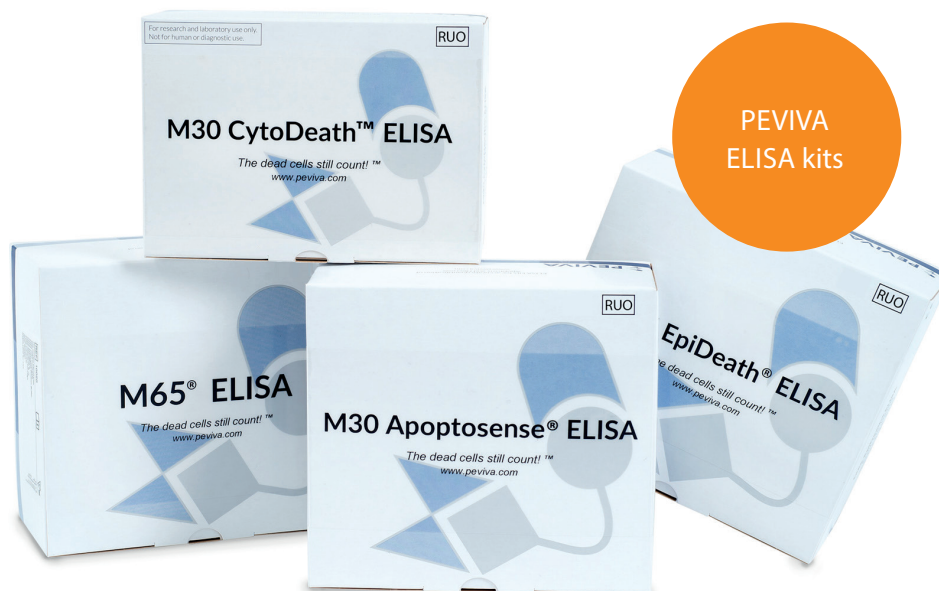
The M30 CytoDEATH™ antibody is used for the detection of apoptosis in keratin 18 positive cells by immunohistochemistry (in formalin-fixed paraffin-embedded or frozen tissue), flow cytometry or western blotting. It detects caspase-cleaved human, monkey and bovine keratin 18. The M30 CytoDEATH™ mouse monoclonal antibody is available unlabelled or conjugated with different fluorescent molecular probe dyes.

M5 and M6 Keratin 18 Antibodies

For research use only

The M5 and M6 Keratin 18 mouse monoclonal antibodies bind to conventional epitopes on keratin 18 between the caspase-cleavage sites aa238 and aa396. The antibodies can be used for different biochemical assays like immunocytochemistry, flow cytometry, western blot, immunoprecipitation and immunohistochemistry. The M5 Keratin 18 is specific for the human and monkey protein, whereas the M6 Keratin 18 also binds to mouse, rat and dog keratin 18.





PEVIVA Product Line		
ELISA Products	Use	Prod. No
M30 Apoptosense® ELISA	RUO	P10011
M30 CytoDeath™ ELISA	RUO	P10900
M65® ELISA	RUO	P10020
M65 EpiDeath® ELISA	RUO	P10040
Monoclonal Antibody Products	Use	Prod. No
M5 Keratin 18 mAb	RUO	P10600
M6 Keratin 18 mAb	RUO	P10650
M30 CytoDEATH™ mAb (unlabelled)	RUO	P10700
M30 CytoDEATH™ mAb Biotin	RUO	P10750
M30 CytoDEATH™ mAb Fluorescein	RUO	P10800
M30 CytoDEATH™ mAb Orange	RUO	P10830

HOW TO ORDER

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