PEVIVA PRODUCT OVERVIEW

APOPTOSIS, NECROSIS, TOTAL CELL DEATH

Product Overview
Peviva Cell Death Products

ELISA Products (RUO)
- M30 Apoptosense® ELISA
- M30 CytoDeath™ ELISA
- M65® ELISA
- M65 EpiDeath® ELISA

Monoclonal Antibody Products (RUO)
- M30 CytoDEATH™ mAb
  (unlabelled, biotin, fluorescein, orange)
- M5 and M6 Keratin 18 mAb
## Measurement of Cell Death Modes

<table>
<thead>
<tr>
<th>Product</th>
<th>Apoptosis</th>
<th>Necrosis</th>
<th>Total cell death</th>
</tr>
</thead>
<tbody>
<tr>
<td>M30 Apoptosense® ELISA</td>
<td>✓</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>M30 CytoDeath™ ELISA</td>
<td>✓</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>M65® ELISA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>M65 EpiDeath® ELISA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

The Peviva Product Line is

- A tool for determination of cell death mode
- For *in vitro* and serum/plasma samples
- The only assay for measurement of apoptosis in blood
# Sample Type and Suitable Experiments

<table>
<thead>
<tr>
<th>Product</th>
<th>Cell cultures</th>
<th>Spheroids</th>
<th>Xenografts</th>
<th>Blood samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>M30 Apoptosense® ELISA</td>
<td>(✓)</td>
<td>(✓)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>M30 CytoDeath™ ELISA</td>
<td>✓</td>
<td>✓</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>M65® ELISA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>M65 EpiDeath® ELISA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
PEVIVA PRODUCT OVERVIEW
APOPTOSIS, NECROSIS, TOTAL CELL DEATH

M30 Apoptosense® ELISA

- measures apoptosis of epithelial cells only
- for *in vitro* and serum/plasma samples
- samples from mouse/rat models with human xenografts
- sandwich ELISA, 96 well plate in a convenient ready-for-use format
- end-point measurement of an accumulated cell death product
- patented detection technique
PEVIVA PRODUCT OVERVIEW

APOPTOSIS, NECROSIS, TOTAL CELL DEATH

M30 CytoDeath™ ELISA

- measures apoptosis of epithelial cells only
- for *in vitro* samples only (not for serum/plasma samples)
- sandwich ELISA, 96 well plate in a convenient ready-for-use format
- end-point measurement of an accumulated cell death product
- patented detection technique
M65 EpiDeath® ELISA

- measures total cell death (apoptosis + necrosis) of epithelial cells
- for *in vitro* and serum/plasma samples
- also intended for samples from mouse/rat models with human xenografts
- end-point measurement of an accumulated cell death product
- sandwich ELISA, 96 well plate in a convenient ready-for-use format
PEVIVA PRODUCT OVERVIEW
APOPTOSIS, NECROSIS, TOTAL CELL DEATH

M65® ELISA

- measures total cell death (apoptosis + necrosis) of epithelial cells
- forerunner of the M65 EpiDeath ELISA
- for in vitro and serum/plasma samples
- samples from mouse/rat models with human xenografts
- sandwich ELISA, 96 well plate in a convenient ready-for-use format
- end-point measurement of an accumulated cell death product
User friendly ELISA kits

- Antigen stability of several days at +4 °C
- Kit stability: 1 – 1½ years from production
- Externally validated
- End-point measurement of accumulated cell death products
- Sandwich ELISA, 96 well plate in a convenient ready-for-use format
- Easy to perform, only a minimum of pipetting steps required
- Can be split up for use at several occasions
- Robust measurements
PEVIVA PRODUCT OVERVIEW
APOPTOSIS, NECROSIS, TOTAL CELL DEATH

Cell Death: Apoptosis | Necrosis

**APOPTOSIS**
- Epithelial cell
- Nucleus
- K18
- Caspase cleavage of K18
- Disintegration of apoptotic bodies and release of K18 fragments
- leakage of full-length K18

**NECROSIS**
- Necrotic cell
- K18
- Nucleus

**MEASUREMENTS**
- M65 EpiDeath® ELISA
- M65® ELISA
- M30-Apoptosense® ELISA
- M30 CytoDeath™ ELISA

**RESULTS**
- only intact K18
- caspase-cleaved K18
- measurement of intact and cleaved K18
- measurement of cleaved K18 only

M30 Apoptosense® ELISA, M65 EpiDEATH® ELISA, M65® ELISA, and M30 CytoDEATH™ are registered trademarks of VLVbio. PEVIVA products are for research use only. See Pubmed for list of references. 800.526.5224. diapharma.com ML-00-00070REV03