

CK-18/M65 ED (Cytokeratin 18)

Analyte: Cytokeratin 18

Specimen Type: EDTA Plasma

Optimum Volume: 0.5 mL

2-8°C -20°C -70°C

7 days 4 months 2 years

Reporting units: U/L*

Method: ELISA

Biological or Clinical Significance:

Cytokeratin 18 (CK18) is an intracellular protein expressed at high levels in most cell types of epithelial origin, including the most common forms of human carcinomas. It is not expressed by cells of the hematopoietic system or by neuronal cells.

Extracellular CK18 can be used as a marker for epithelial cell death. During necrosis, loss of cell membrane integrity will result in the release of intracellular proteins, including CK18, into the extra-cellular compartment. Apoptosis represents an active form of cell death that initially preserves plasma membrane integrity, but which is commonly followed by “secondary necrosis” where intracellular components are released. The M65 EpiDeath[®] ELISA assay measures total soluble CK18 released from dead cells (necrotic and apoptotic). Measurements from cell culture supernatants or human serum or plasma samples by the M65 EpiDeath[®] ELISA will therefore represent the total epithelial cell death “by any cause”. The M65 EpiDeath[®] assay can be used in combination with the apoptosis-specific, M30[®] ELISA, for determination of cell death by necrosis, via the M30:M65 ratio.

Principle of Test Method:

The M65[®] EpiDeath ELISA for CK18 is a solid-phase sandwich enzyme immunoassay. *Note: 1 U/L = 1.24 pM defined against a synthetic peptide standard.