

AroCell TK 210 ELISA

A sensitive and specific immunoassay for the accurate measurement of human TK1 protein



BASED ON PROPRIETARY MONOCLONAL ANTIBODIES

AroCell TK 210 ELISA is a quantitative immunoassay kit for the determination of human Thymidine Kinase 1 (TK1) protein concentration in serum. The ELISA format is simple and robust, requires no special instrumentation to perform and can easily be incorporated into standard laboratory processes. By utilizing monoclonal antibodies specific for the TK 210 epitope of TK1, AroCell TK 210 ELISA brings improved sensitivity and specificity to the assay of this key biomarker. The kit protocol includes a pre-treatment step of the samples using a proprietary sample dilution buffer that releases TK1 from its aggregates and makes it more readily accessible for accurate measurements.

OFFERS NEW POSSIBILITIES

AroCell TK 210 ELISA provides new opportunities for studying inhibition of cell growth as well as disruption of dividing cells, and represents a new diagnostic tool for monitoring of therapy response in subjects with haematological and solid tumours.

TECHNICAL SPECIFICATIONS

Assay format:	Microplate sandwich ELISA
Size:	1 × 96 wells
Calibration curve:	0–17 ng/mL
Assay Time:	4.75 h
Sample Type:	Human serum, Lithium Heparin plasma, cell culture extract, and cell culture supernatant.
Sample Size:	180 µL
Species:	Human
Calibrator:	Human recombinant TK1

PERFORMANCE CHARACTERISTICS

Limit of detection:	0.12 ng/mL
Measuring range:	0.12 – 17 ng/mL The range may be extended by increasing sample dilution.
Dilution recovery:	<5% deviation from linearity.
Precision within assay:	At TK1 conc. 1.85 ng/mL: CV% = 4.9% At TK1 conc. 11.53 ng/mL: CV% = 1.9%
Precision between assay:	At TK1 conc. 1.85 ng/mL: CV% = 0.9% At TK1 conc. 11.53 ng/mL: CV% = 2.2%
Precision total:	At TK1 conc. 1.85 ng/mL: CV% = 5.1% At TK1 conc. 11.53 ng/mL: CV% = 3.0%
Specificity:	No cross-reaction with TK2 or non-human TK1.



AroCell TK 210 ELISA is CE-marked in EU, and for Research Use Only in USA and the rest of the world.

1. Alegre, Melissa & Robison, Richard & O'Neill, Kim. (2013). Thymidine Kinase 1: A Universal Marker for Cancer. Cancer Clin. Oncol.. 2. 159-167. 10.5539/ccco.v2n1p159.
2. Jagarlamudi KK, Shaw M.(2018). Thymidine kinase 1 as a Tumor Biomarker: Technical Advances Offer New Potential to an Old Biomarker. Biomark Med. 12(9):1035-1048. DOI: 10.2217/bmm-2018-0157.
3. Jagarlamudi KK, Holmgren S, Levedahl KH, Höglund M, Venge P, Eriksson S. AroCell TK 210 ELISA for determination of TK1 protein: age-related reference ranges and comparison with other TK1 assays. Biotechniques. 2020;68(6):334-341. doi:10.2144/btn-2019-0148
4. Tribukait, B. Early prediction of pathologic response to neoadjuvant treatment of breast cancer: use of a cell-loss metric based on serum thymidine kinase 1 and tumour volume. BMC Cancer 20, 440 (2020). <https://doi.org/10.1186/s12885-020-06925-y>

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