



Uppsala June 31, 2019

REPORT

Comparison of the AroCell TK 210 ELISA with the ABCAM TK1 ELISA and the Gold-Standard Tritiated Thymidine Activity Assay for Thymidine Kinase 1

Summary

Results obtained with the AroCell TK 210 ELISA correlated closely with the gold-standard ^3H labelled thymidine activity assay for Thymidine Kinase 1 (TK1).

This confirms the diagnostic accuracy of the AroCell TK 210 ELISA.

Results with the ABCAM TK1 ELISA assay correlated poorly with both the AroCell TK 210 ELISA and the ^3H tritiated thymidine activity assay.

This indicates that the ABCAM TK1 ELISA is an inaccurate assay for Thymidine Kinase 1.

Materials and Methods

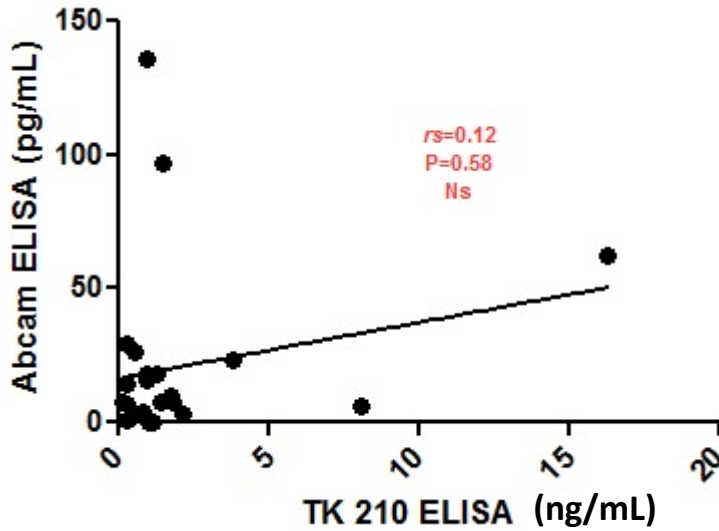
Samples: 24 serum samples from subjects with various hematological malignancies.

Methods: Each of the above samples was assayed with the ABCAM TK1 ELISA, The AroCell TK 210 ELISA according to the manufacturers' instructions for use and the gold-standard ^3H labelled thymidine TK1 activity assay (1)

Results

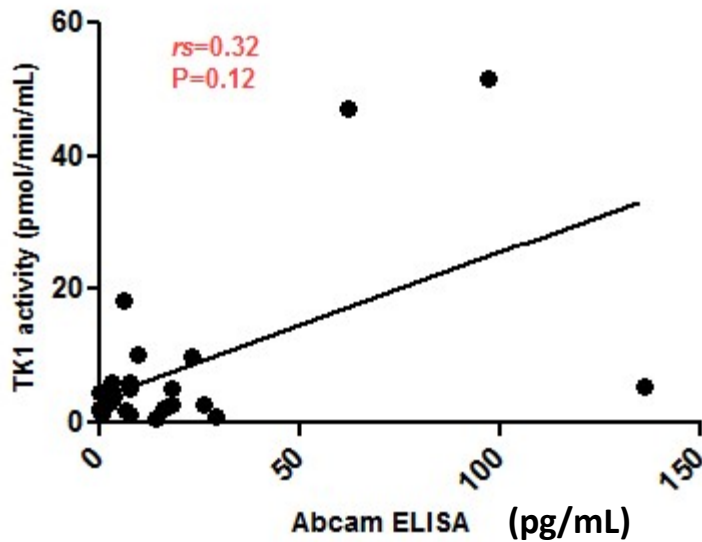
The "TK1" results obtained with each method were plotted against each other as shown in the following figures.

Figure 1: AroCell TK 210 ELISA v ABCAM TK1 ELISA



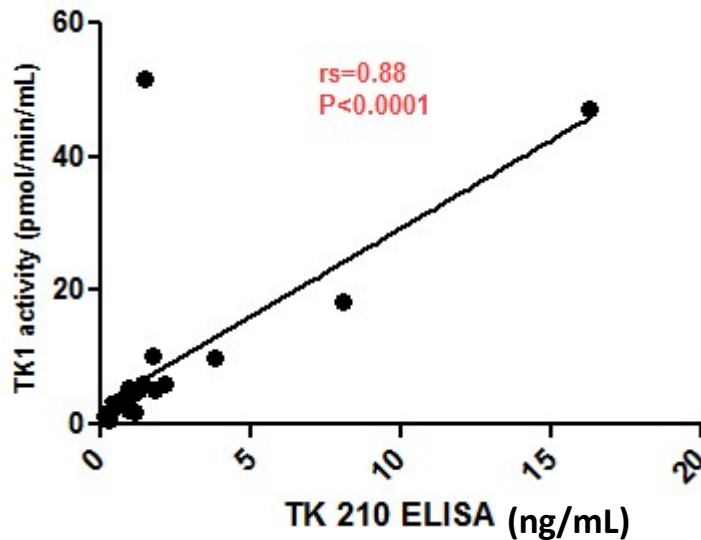
No significant correlation was found. The AroCell TK 210 ELISA and the ABCAM TK1 ELISA seem to be measuring different things. A p-value of <0.05 would be required to indicate that the assays were measuring the same substance.

Figure 2: Gold-Standard ³H Labelled Thymidine Assay v ABCAM ELISA



There is no significant correlation between the ABCAM TK1 ELISA and the ³H thymidine activity assay. A p-value <0.05 would indicate a significant correlation. This indicates that the ABCAM assay is an inaccurate assay for Thymidine Kinase 1.

Figure 3: Gold Standard ³H Thymidine Assay vs AroCell TK 210 ELISA.



There is a very significant correlation between the AroCell TK 210 ELISA and the ³H thymidine activity assay ($p < 0.0001$). Note the high r^2 value and the close agreement for most of the values around the regression line.

This confirms that the AroCell TK 210 ELISA is an accurate assay for Thymidine Kinase 1.

Reference:

1. Sharif H et al., 2012, Vet J

A sensitive and kinetically defined radiochemical assay for canine and human serum thymidine kinase 1 (TK1) to monitor canine malignant lymphoma. Sharif H1, von Euler H, Westberg S, He E, Wang L, Eriksson S.