

Active Thymidine Kinase 1, Soluble (TK1) Instruction Manual

SBPC312Hu01

Homo sapiens (Human)

Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	8.9
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

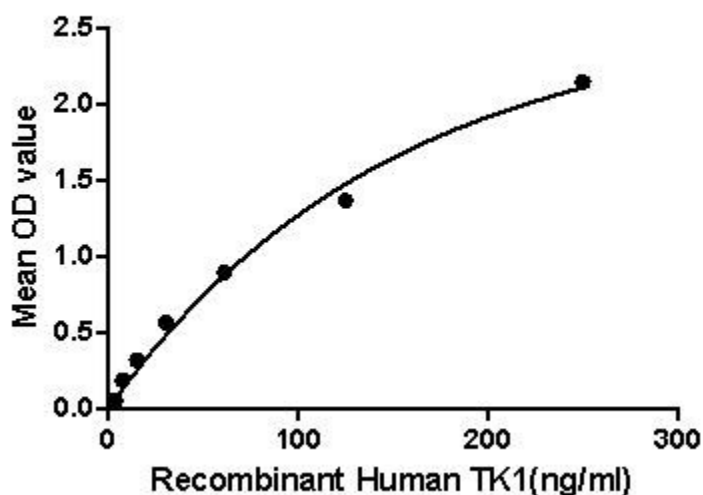


Figure. The binding activity of TK1 with GAPDH.

Thymidine kinase 1 (TK1), is a human thymidine kinase. Thymidine kinase has been making a growing impact in the cancer research community. It has been found that elevated blood serum levels of TK-1 correlates with metastatic capabilities of the cancer and thereby can be used to detect malignant types of cancer, furthermore TK-1 has been found to show up in blood serum even before clinical symptoms even start to show. Besides, Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) has been identified as an interactor of TK1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human TK1 and recombinant human GAPDH. Briefly, TK1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to GAPDH-coated microtiter wells and incubated for 2h at 37°C. Wells were

washed with PBST and incubated for 1h with anti-TK1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of TK1 and GAPDH was shown in Figure 1, and this effect was in a dose dependent manner.

USAGE

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

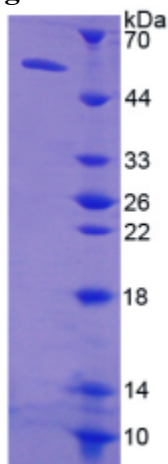


Figure. SDS-PAGE

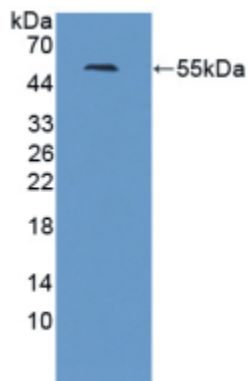


Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.