APB089Hu01 100μg
Active Glutathione S Transferase Kappa 1 (GSTk1)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Thr7~Val222
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.7
Predicted Molecular Mass: 28.1kDa
Accurate Molecular Mass: 28kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

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

[STORAGE AND STABILITY]

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

Stability Test: 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 37ºC 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.

[SEQUENCE]

TVELFYDVLSPYSWLGFEILCRYQNIWNINLQLRPSLITGIMKDSGNKPPGLLPRKGLYMAN
DLKLLRHHLQIPIHFPKDFLSVMLEKGSLSAMRFLTAVNLEHPEMLEKASRELWMRVWSRN
EDITEPQSILAAAEKAGMSAEQAQGLLEKIATPKVKNQLKETTEAACRYGAFGLPITVAHVD
GQTHMLFGSDRMELLAHLLGEKWMGPIPPAV

[ACTIVITY]

Glutathione S Transferase Kappa 1 (GSTk1) is a member of the GST superfamily. It has unique enzymatic activities and plays important roles in cellular detoxification and protection against oxidative stress. GSTk1 is involved in conjugating glutathione to a variety of substrates, facilitating the removal of harmful substances from cells. It is expressed in different tissues and has been implicated in various physiological and pathological processes. Its functions are crucial for maintaining cellular homeostasis and overall organismal health.Besides,the binding of GSTk1 and CDK2 may regulate cell cycle progression and affect cell proliferation, potentially influencing tumor development and other cellular events.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human GSTk1 and recombinant mouse CDK2. Briefly, GSTk1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CDK2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-GSTk1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm

immediately. The binding activity of recombinant human GSTk1 and recombinant mouse CDK2 was shown in Figure 1, the EC50 for this effect is 0.046ug/mL.

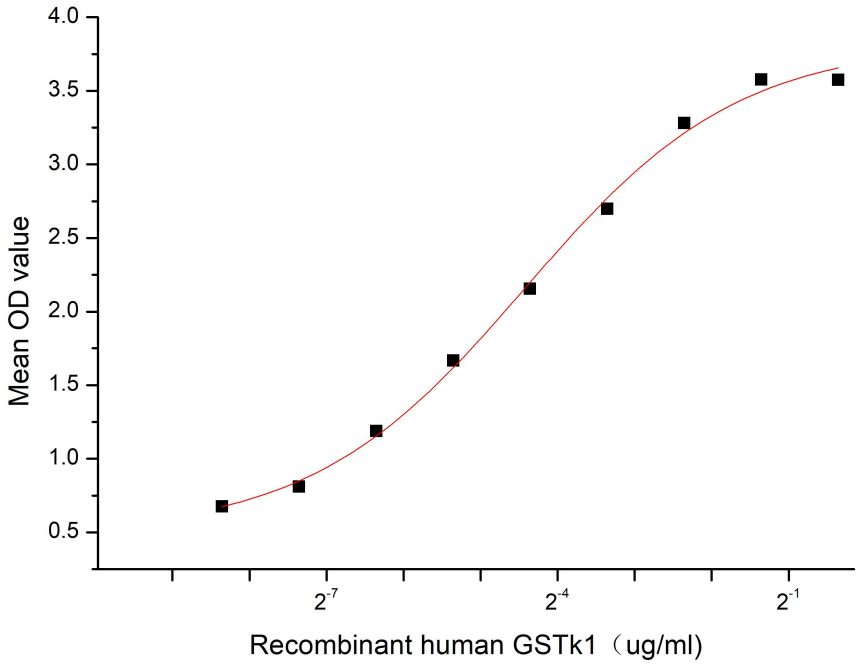

Figure 1. The binding activity of recombinant human GSTk1 and recombinant mouse CDK2

[IDENTIFICATION]

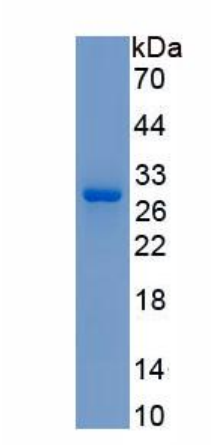

Figure 2. SDS-PAGE

Sample: Active recombinant GSTk1, Human

[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.