

**APA971Hu01 100µg**

**Active Glypican 3 (GPC3)**

**Organism Species: *Homo sapiens* (Human)**

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Thr343~His559

**Tags:** N-terminal His and GST Tag

**Purity:** >80%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

**Original Concentration:** 200µg/mL

**Applications:** Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 6.0

**Predicted Molecular Mass:** 54.6kDa

**Accurate Molecular Mass:** 60kDa 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 2-8°C for one month.

Aliquot and store at -80°C 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 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.

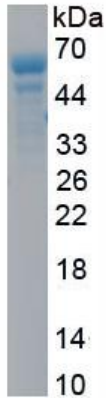
## **[ SEQUENCE ]**

TTIGKLCA  
HSQQRQYRSA YYPEDLFIDK KVLKVAHVEH EETLSSRRRE LIQKLKSFIS  
FYSALPGYIC SHSPVAENDT LCWNGQELVE RYSQKAARNG MKNQFNLHEL  
KMKGPPEVVS QIIDKCLKHIN QLLRTMSMPK GRVLDKNLDE EGFESGDCGD  
DEDECIGGSG DGMIKVKNQL RFLAELAYDL DVDDAPGNSQ QATPKDNEIS  
TFHNLGNVH

## **[ ACTIVITY ]**

Glypican-3 (GPC3), a 70 kDa protein, is a member of the glypican family that attaches to the cell surface by a glycosylphosphatidylinositol anchor, is specifically up-regulated in hepatocellular carcinoma (HCC) although rarely or not expressed in normal liver tissues, making it a perfect diagnostic and treatment target for HCC. GPC3 is also a negative transcriptional regulator and tumor suppressor that inhibits the growth of breast, ovary, and lung cancer cells. It is reported that GPC3 can form a complex with insulin-like growth factor 2 (IGF2), and might thereby modulate IGF2 action. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GPC3 and recombinant rat IGF2. Briefly, GPC3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to IGF2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-GPC3 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes





**Figure 3. SDS-PAGE**

**Sample: Active recombinant GPC3, 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.