

**APB867Hu02 100µg**

**Active Receptor Tyrosine Protein Kinase erbB-2 (ErbB2)**

**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:** Thr23~Gly372

**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% SKL, 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:** 6.4

**Predicted Molecular Mass:** 42.2kDa

**Accurate Molecular Mass:** 42kDa 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.

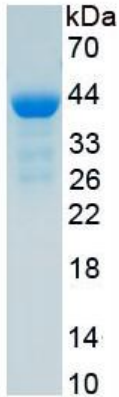
## [ **SEQUENCE** ]

```
TQVCTGTD MKLRLPASPE THLDMLRHLY
GGCQVVQGNL ELTYLPTNAS LSFLQDIQEV QGYVLIAHNQ VRQVPLQRLR
IVRGTQLFED NYALAVLDNG DPLNNTTPVT GASPGLREL QLRSLTEILK
GGVLIQRNPQ LCYQDTILWK DIFHKNNQLA LTLIDTNRSR ACHPCSPMCK
GSRCWGESSE DCQSLTRTVC AGGCARCKGP LPTDCCHEQC AAGCTGPKHS
DCLACLHFNH SGICELHCPA LVTYNTDTFE SMPNPEGRYT FGASCVTACP
YNYLSTDVGS CTLVCPLHNQ EVTAEADGTQR CEKCSKPCAR VCYGLGMEHL
REVRVTSAN IQEFAGCKKI FG
```

## [ **ACTIVITY** ]

Receptor Tyrosine Protein Kinase erbB-2 (ErbB2) as known as HER2 (Human Epidermal Growth Factor Receptor 2), is a member of the EGFR family of receptor tyrosine kinases. It is a 185 kDa cell membrane receptor that plays a crucial role in cell signaling and proliferation. Besides, Plakophilin 2 (PKP2) has been identified as an interactor of ErbB2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human ErbB2 and recombinant human PKP2. Briefly, ErbB2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to PKP2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ErbB2 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 at 37°C. Finally, add 50  $\mu$ L stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human ErbB2 and recombinant human PKP2 was shown in Figure 1, and this effect was in a dose dependent manner.





**Figure 3. SDS-PAGE**

**Sample: Active recombinant ErbB2, 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.