

**APE112Hu02 100µg**

**Active Ephrin B2 (EFNB2)**

**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:** Ile28~Ala229

**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:** Cell culture; Activity Assays.

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

**Predicted isoelectric point:** 6.8

**Predicted Molecular Mass:** 25.9kDa

**Accurate Molecular Mass:** 29kDa 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.

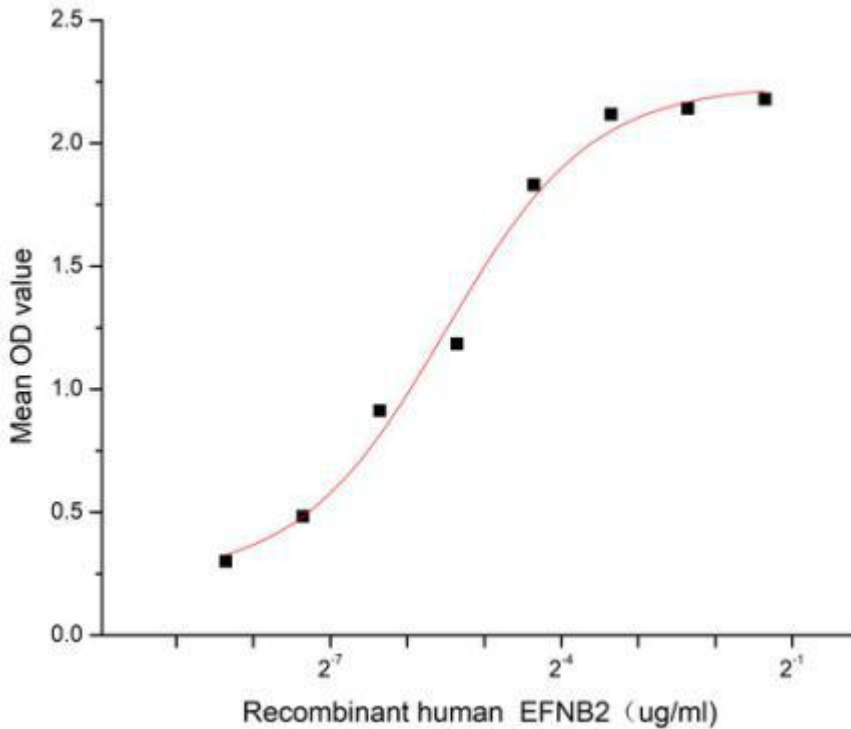
## **[ SEQUENCE ]**

```
IVL EPIYWSSNS KFLPGQLVL
YPQIGDKLDI ICPKVDSKTV GQYEYYKVYM VDKDQADRCT IKKENTPLLN
CAKPDQDIKF TIKFQEFSPN LWGLEFQKNK DYYIISTSNG SLEGLDNQEG
GVCQTRAMKI LMKVGQDASS AGSTRNKDPT RRPELEAGTN GRSSTTSPFV
KPNPGSSTDG NSAGHSGNNI LGSEVALFA
```

## **[ ACTIVITY ]**

EphrinB2 (EFNB2), a 40 kDa member of the Ephrin-B family, is a pivotal bidirectional signaling molecule ubiquitously expressed in mammals and is crucial in angiogenesis during development and disease progression. Besides, EFNB2 is expressed at abnormally high levels in some neoplasms, such as squamous cell carcinoma of the head and neck and colorectal cancer. Its overexpression is associated with the malignant progression of tumors. Reelin (RELN) has been identified as an interactor of EFNB2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human EFNB2 and recombinant human RELN. Briefly, EFNB2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to RELN-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-EFNB2 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

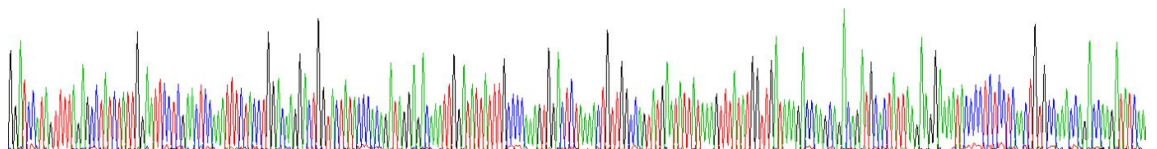
read at 450/630 nm immediately. The binding activity of recombinant human EFNB2 and recombinant human RELN was shown in Figure 1, the EC50 for this effect is 0.02 ug/mL.



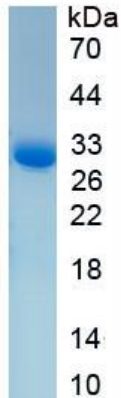
**Figure 1. The binding activity of recombinant human EFNB2 and recombinant human RELN**

**[ IDENTIFICATION ]**

55GGCCGATGTTTGAGCCATTCATCGATTCGACGACGATTCACCGCGAGGCTGCTACCCGCGGTGGCGAATCGATTTTCCCGAGTGCCTCAACTGTGGCGGTGATATDAAAGTTTATGTTGTGAAAGCGGCGAGTCCATTAAGAGGAAATCCCTCTCCAGCTGGCAACCGAGGATTCAG



**Figure 2. Gene Sequencing (extract)**



**Figure 3. SDS-PAGE**

**Sample: Active recombinant EFNB2, 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.