

**APE108Hu01 100µg**

**Active Ephrin A2 (EFNA2)**

**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:** Asn45~Ser213

**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:** 6.3

**Predicted Molecular Mass:** 22.7kDa

**Accurate Molecular Mass:** 23kDa 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 ]**

```
NPRFHA GAGDDGGGYT VEVSINDYLD IYCPHYGAPL PPAERMEHYV LYMVNGEGHA  
SCDHRQRGFK RWECNRPAAP GGPLKFSEKF QLFTPFSLGF EFRPGHEYYYY ISATPPNAVD  
RPCLRLKVYV RPTNETLYEA PEPIFTSNNS CSSPGGCRLF LSTIPVLWTL LGS
```

## **[ ACTIVITY ]**

Ephrin A2 (EFNA2) is a cell surface-associated protein belonging to the Ephrin family, which are involved in intercellular communication and cell localization. EFNA2 is mainly expressed in tissues including the brain, heart, lung, kidney and pancreas. And this protein is involved in regulating a variety of biological processes, including cell migration, cell differentiation, and tissue boundary formation, by interacting with Eph receptors. It also plays a significant role in the development and maintenance of the cardiovascular system, as well as in the regulation of synaptic plasticity and neuronal circuitry in the brain. A Disintegrin And Metalloprotease 10 (ADAM10), a disintegrin and metalloproteinase, can cleave EFNA2, potentially altering the activity of EFNA2 or its interaction with Eph receptors, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human EFNA2 and recombinant rat ADAM10. Briefly, biotin-linked EFNA2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to ADAM10-coated microtiter wells and incubated for 1h at 37 °C . Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then 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 µl stop solution to the wells and read at 450 nm immediately. The binding activity of EFNA2 and ADAM10 was shown in Figure 1,

the EC50 for this effect is 1.38 ug/mL.

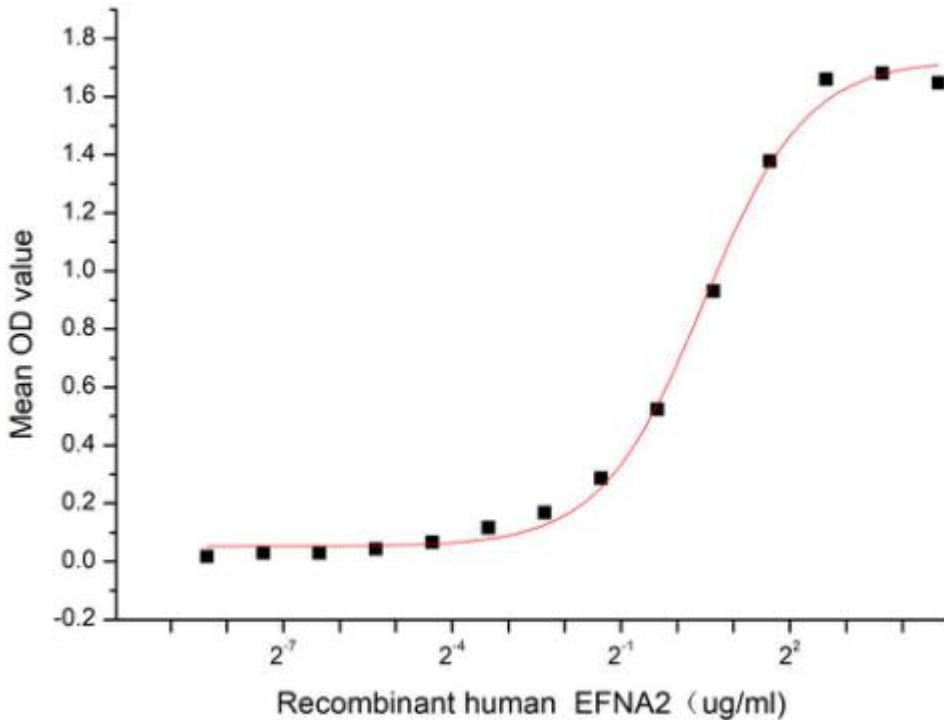
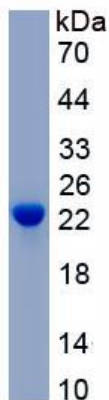


Figure 1. The binding activity of recombinant human EFNA2 and recombinant rat ADAM10

**[ IDENTIFICATION ]**



**Figure 2. SDS-PAGE****Sample: Active recombinant EFNA2, 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.