

**APA007Mu02 100µg**

**Active Angiogenin (ANG)**

**Organism Species: *Mus musculus* (Mouse)**

***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:** Gln25~Leu145

**Tags:** N-terminal His and GST 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:** 9.8

**Predicted Molecular Mass:** 42.7kDa

**Accurate Molecular Mass:** 43kDa 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.

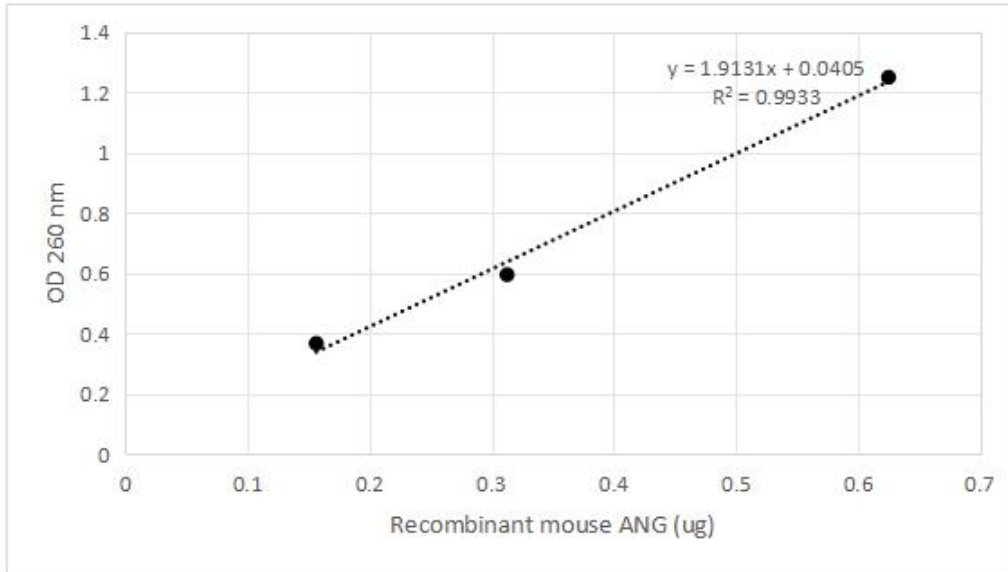
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCE ]**

```
QDDSR YTKFLTQ HHD AKPKGRDDRYCERMMKRRSLTSPCKDVNTFIHG NKSNIKAI CGANGSPYREN  
LRMSKSPFQVTTCKHTGGSPRPQC YRASAGFRHVVIACENGLPVHFD ESFFSL
```

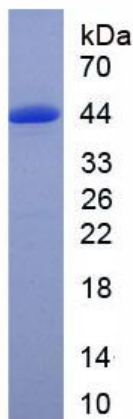
## **[ ACTIVITY ]**

Angiogenin (ANG) was initially purified from serum-free media conditioned by growth of a human adenocarcinoma cell line HT-29 based on its ability to initiate vascularization in the chicken embryo chorioallantoic membrane. A number of other tumor, as well as normal, cell lines can also secrete Angiogenin. In addition, Angiogenin is present in normal human plasma at levels as high as 60-120 ng/mL. Surprisingly, Angiogenin has been found to be a member of the ribonuclease superfamily with approximately 35% sequence similarity at the amino acid level with pancreatic RNase. Angiogenin exhibits ribonucleolytic activity that is distinctly different than that of pancreatic RNase A. The ribonucleolytic activity of Angiogenin toward most RNase A substrates is much lower than that of RNase A. Nevertheless, the ribonucleolytic activity of Angiogenin is essential to its angiogenic activity since inhibition of the Angiogenin RNase activity will also abolish angiogenesis activity. The activity of recombinant mouse ANG was measured by its ribonucleolytic activity toward RNA. The result was shown in figure 1, and the rmANG produces a delta Abs260/  $\mu$ g >1.0 in two hours.



**Figure 1. Ribonucleolytic activity toward RNA by recombinant mouse ANG**

## **[ IDENTIFICATION ]**



**Figure 2. SDS-PAGE**

**Sample: Active recombinant ANG, Mouse**

## **[ 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.