

**APB097Hu61 100µg**  
**Active Motility Related Protein (MRP1)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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12th Edition (Revised in Aug, 2016)

## **[ PROPERTIES ]**

**Source:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Ser112~Ile195

**Tags:** N-terminal His-tag

**Purity:** >80%

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

**Buffer Formulation:** PBS, pH7.4, containing 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:** 5.9

**Predicted Molecular Mass:** 11.3kDa

**Accurate Molecular Mass:** 12kDa 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.

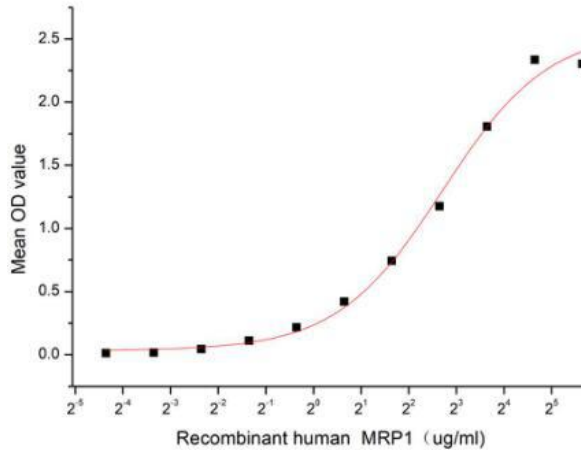
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration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

## [ SEQUENCE ]

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SHKDEVIKE VQEFYKDTYN KLKTKDEPQR ETLKAIHYAL NCCGLAGGVE QFISDICPKK DVLETFTVKS CPDAIKEVFD  
NKFHI
```

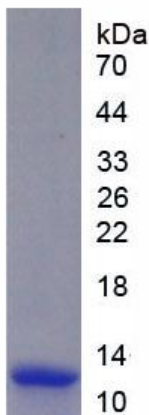
## [ ACTIVITY ]

Motility Related Protein (MRP1) is a member of the superfamily of ATP-binding cassette (ABC) transporters. It can enable ATPase-coupled inorganic anion transmembrane transporter activity. Involved in anion transmembrane transport; renal tubular secretion and response to toxic substance. It is an integral component of plasma membrane. Besides, Heparin Binding Epidermal Growth Factor Like Growth Factor (HBEGF) has been identified as an interactor of MRP1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human MRP1 and recombinant human HBEGF. Briefly, biotin-linked MRP1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to HBEGF-coated microtiter wells and incubated for 1h at 37 °C . Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30 min, 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  $\mu$ l stop solution to the wells and read at 450 nm immediately. The binding activity of MRP1 and HBEGF was shown in Figure 1, the EC50 for this effect is 6.55 ug/mL.



**Figure 1. The binding activity of recombinant human MRP1 and recombinant human HBEGF**

### **[ IDENTIFICATION ]**



**Figure 2. SDS-PAGE**

**Sample: Active recombinant MRP1, 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.