

## **Invent ® Na<sup>+</sup>/ K<sup>+</sup> ATPase α1 Recombinant Rabbit Monoclonal Antibody**

Cat. No. IN-SM005AB

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### **Description:**

Na<sup>+</sup>/ K<sup>+</sup> ATPase exists in cell membrane and is an active transport enzyme that can exchange sodium and potassium ions. It was discovered by J.C. Skou in 1957. With a few exceptions, such as the red blood cell membrane of cats and dogs, it exists in all animal cell membranes. It has also been reported in bacteria, but instances are rare, and its presence in plants has not been confirmed. It is only active when Na<sup>+</sup> and K<sup>+</sup> are present simultaneously. During the decomposition of ATP, the enzyme molecules undergo allosteric (conformational change), which makes the bound Na<sup>+</sup> and K<sup>+</sup> transfer from inside the cell membrane to outside the cell membrane, or from outside the cell membrane to inside the cell membrane. It can be used as a marker for cell membranes (plasma membrane).

### **Application:**

The antibody can be applied to WB, IHC, ICC/IF, Flow Cytometry

### **Important Product Information:**

**Size:** 20ul / 100ul

**Species Reactivity:** Human, Mouse, Rat

**Host/Isotype:** Rabbit / IgG

**Concentration:** 1 mg/ml

**Molecular Wt:** Predicted band size: 113 kDa

### **Shipping:**

This antibody is shipped at 4°C.

### **Storage:**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

### **Additional Materials Required:**

centrifuge  
Antibody diluent

**Protocols:**

1. Place the antibody tube into the centrifuge and increase the speed to 4000rpm to allow the liquid to the bottom of the tube.
2. Refer to Table 1 to dilute the antibody proportionally for different applications.

**Table 1. Tested Dilution for Different Applications**

Applications	Tested Dilution
Western Blot (WB)	1:1,000-1:5,000
Immunohistochemistry (IHC)	1:50-1:200
Immunocytochemistry (ICC/IF)	1:50-1:200
Flow Cytometry (Flow)	1:50-1:100

**Tech notes:**

Membrane proteins tend to form polymers at high temperatures, and it is recommended not to exceed **70 °C** when preparing samples with WB.

**For Research Use Only. Not for use in diagnostic procedures.**