

### PRODUCT DATA SHEET

Bioworld Technology,Inc.

# Na+/K+-ATPase α1 (phospho-S16) polyclonal antibody

Catalog: BS4259 Host: Rabbit Reactivity: Human, Mouse, Rat

#### **BackGround:**

The sodium/potassium ATPase is an integral membrane enzyme found in all cells of higher organisms and is responsible for the ATP dependent transport of sodium and potassium across the cell membrane. This membrane bound enzyme is related to a number of other ATPases including sarcoplasmic and endoplasmic reticulum calcium ATPase (SERCA) and plasma membrane calcium ATPase (PMCA). The sodium / potassium ATPase consists of a large, multipass, transmembrane catalytic subunit, termed the alpha subunit, and an associated smaller glycoprotein, termed the beta subunit. Studies indicate that there are three isoforms of the alpha subunit (alpha 1, alpha 2, alpha 3) and two isoforms of the beta subunit (beta 1 and beta 2) encoded by two multigene families. The different isoforms of the sodium / potassium ATPase exhibit tissue specific and developmental patterns of expression. The alpha 1 and beta mRNAs are present in all cell types examined, whereas the alpha 2 and alpha 3 mRNAs exhibit a more restricted pattern of cell specific expression. The alpha subunit has been found in kidney, brain, heart, and to a lesser extent liver, skeletal and smooth muscle.

#### **Product:**

1 mg/ml in Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2.

## **Molecular Weight:**

~ 112 kDa

## **Swiss-Prot:**

P05023

#### **Purification&Purity:**

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

#### **Applications:**

WB: 1:500~1:1000

## IHC: 1:50~1:200

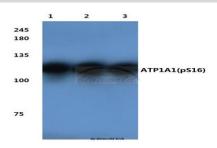
**Storage&Stability:** 

Store at  $4\,\mathrm{C}$  short term. Aliquot and store at -20  $\mathrm{C}$  long term. Avoid freeze-thaw cycles.

## **Specificity:**

p-Na+/K+-ATPase  $\alpha$ 1 (S16) polyclonal antibody detects endogenous levels of Na+/K+-ATPase  $\alpha$ 1 protein only when phosphorylated at Ser16.

#### DATA:

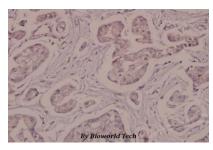


Western blot (WB) analysis of p-Na+/K+-ATPase  $\alpha 1$  (S16) polyclonal antibody at 1:500 dilution

Lane1:MCF-7 cell lysate

Lane2:Hela cell lysate

Lane3:Raw264.7 cell lysate



Immunohistochemistry (IHC) analyzes of p-Na+/K+-ATPase α1 (S16) pAb in paraffin-embedded human breast carcinoma tissue at 1:50.

#### Note:

For research use only, not for use in diagnostic procedure.

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