

## **Product datasheet for TA389164**

## **ATP1B3 Mouse Antibody [Clone ID: M016]**

## **Product data:**

**Product Type:** Primary Antibodies

Clone Name: M016

**Applications:** ICC, IP, WB Recommended Dilution: **WB**: 1:1000

**ICC**: 1:50

Reactivity: Human
Host: Mouse
Isotype: IgG1

Immunogen: Clone (M016) was generated from a proprietary antigen related to the native human Na+/K+

ATPase β3 subunit expressed in A431 epidermoid carcinoma cell line.

Specificity: Clone M016 mouse monoclonal antibody detects a 40 kDa\* protein on SDS-PAGE "Native"

immunoblots of human A431, LNCaP, MeWo, MDA-MB-231, and MCF7 cells. This antibody does not detect denatured Na+/K+ ATPase  $\beta$ 3 subunit. In addition, mass spectrometry analysis of immunoprecipitates using NM0161 in human A431 cell lysates confirms that this antibody only detects Na+/K+ ATPase  $\beta$ 3 protein. The antibody works for western blot, immunoprecipitation, ELISA, and immunocytochemistry, as well as detects the  $\beta$ 3 subunit on

live cells.

Formulation: PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol

**Concentration:** lot specific

Purification: Protein G Purified

Conjugation: Unconjugated

Storage: Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to

presence of 50% glycerol. Stable for at least 1 year at -20°C.

**Stability:** After date of receipt, stable for at least 1 year at -20°C.

Predicted Protein Size: 40

Database Link: P54709



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Background:

The Na+/K+ ATPase is an integral membrane heterodimer belonging to the P-type ATPase family. This ion channel uses the energy derived from ATP hydrolysis to maintain membrane potential by driving Na+ export and K+ import across the plasma membrane. It is composed of a large catalytic  $\alpha$  subunit and a membrane-spanning auxiliary  $\beta$  subunit. In humans, the Na+/K+ ATPase is a binary complex of an  $\alpha$  subunit that has four isoforms ( $\alpha$ 1- $\alpha$ 4) and a  $\beta$ -subunit that has three isoforms ( $\beta$ 1,  $\beta$ 2,  $\beta$ 3). Na+/K+ ATPase subunit expression has been shown to be upregulated in cancers, and inhibition of Na+/K+ ATPase activity has anti-cancer effects. The  $\beta$ 3 subunit of Na+/K+ ATPase has increased expression in human gastric cancer tissues and cell lines, and its increased expression level predicts poor patient outcome.  $\beta$ 3 subunit knockdown significantly inhibited cell proliferation, colony-formation ability, migration, and invasion in human gastric carcinoma cell lines.

Note:

Protein G purified tissue culture supernatant.