

## PRODUCT DATA SHEET

Bioworld Technology,Inc.

# S100-A6 monoclonal antibody

Catalog: MB66616 Host: Mouse Reactivity: Human

### **BackGround:**

Despite their relatively small size (8-12 kDa) and uncomplicated architecture, S100 proteins regulate a variety of cellular processes, such as cell growth and motility, cell cycle progression, transcription, and differentiation. To date, 25 members have been identified, including S100A1-S100A18, trichohyalin, filaggrin, repetin, S100P, and S100Z, making it the largest group in the EF-hand, calcium-binding protein family. Interestingly, 14 S100 genes are clustered on human chromosome 1q21, a region of genomic instability. Research studies have demonstrated that significant correlation exists between aberrant S100 protein expression and cancer progression. S100 proteins primarily mediate immune responses in various tissue types but are also involved in neuronal development. Each S100 monomer bears two EF-hand motifs and can bind up to two molecules of calcium (or other divalent cation in some instances). Structural evidence shows that S100 proteins form antiparallel homo- or heterodimers that coordinate binding partner proximity in a calcium-dependent (and sometimes calcium-independent) manner. Although structurally and functionally similar, individual members show restricted tissue distribution, are localized in specific cellular compartments, and display unique protein binding partners, which suggests that each plays a specific role in various signaling pathways. In addition to an intracellular role, some S100 proteins have been shown to act as receptors for extracellular ligands or are secreted and exhibit cytokine-like activities. S100A6 (calcyclin) is involved in a number of cellular processes, including exocytosis and cell cycle regulation. In addition, S100A6 interacts with a number of proteins such as SIP, GAPDH, and annexins in a calcium-dependent fashion. Research studies demonstrate that a down regulation of corresponding S100A6 gene expression causes a decrease in cell proliferation.

#### **Product:**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

## **Molecular Weight:**

~ 10kDa

### **Swiss-Prot:**

P06703

# **Purification&Purity:**

The antibody was purified by immunogen affinity chromatography.

# **Applications:**

WB (1/500 - 1/1000)

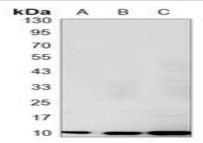
# Storage&Stability:

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

#### **Specificity:**

Recognizes endogenous levels of S100-A6 protein.

## **DATA:**



Western blot analysis of S100-A6 expression in COS7 (A), MCF7 (B), HCT116 (C), A549 (D) whole cell lysates.

#### Note:

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

## Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park,

MN 55416,USA.

Email: <a href="mailto:info@bioworlde.com">info@bioworlde.com</a>

Tel: 6123263284 Fax: 6122933841 Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046,

P. R. China.

Email: <a href="mailto:info@biogot.com">info@biogot.com</a>
Tel: 0086-025-68037686
Fax: 0086-025-68035151



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P. R. China.

Email: <u>info@biogot.com</u> Tel: 0086-025-68037686 Fax: 0086-025-68035151