

Monoclonal Antibody to

VASP (phospho-Ser 239)**clone 16C2**

Order No.: **0047-100/VASP-16C2**

Size (µg) 100

Lot No.: 0047S

Host: Mouse

Isotype: IgG1 kappa

Immunogen: Phosphopeptide conjugated to KLH

Epitope: activated VASP (Serine 239)

Last Modified 09.02.2005

Species Reactivity

Human	Mouse	Rat	Dog
yes	yes	ND	ND

Background & Specificity:

VASP (Vasodilator Stimulated Phosphoprotein) plays an important role in ANF / NO / cGMP / cGMP Protein Kinase and cAMP / cAMP Protein Kinase signalling. VASP is expressed in almost all human and animal cell lines; particularly high concentrations are found in Thrombocytes, vascular smooth muscle cells and fibroblasts. In cultured cells VASP is associated with focal contacts, cell-cell-contacts, microfilaments and dynamic membrane regions such as the leading edge. In vitro binding data show that VASP binds to profilin, zyxin, vinculin, and the Listeria spp. surface protein ActA. Functional evidence indicates that VASP is a crucial factor involved in the enhancement of actin filament formation.

Mab **VASP-16C2 recognizes VASP only , when Serine 239 is phosphorylated**, a site preferred by cGMP-dependent protein kinase (PKG) but also used by cAMP-dependent protein kinase (PKA). The antibody does not crossreact with the non-phosphorylated form of VASP nor with unrelated serine-phosphorylated proteins. Therefore, antibody 16C2 is able to monitor the phosphorylation state of VASP serine 239 as well as PKA/PKG activity.

Smolenski et al. (1998) J Biol Chem 273, 20029-35; Reinhard et al. (1999) VASP. In: Guidebook to the Cytoskeletal and Motor Proteins, Oxford University Press, pp. 168-171; Smolenski et al. (2000), J Biol Chem 275, 25723-27532; Burkhardt et al. (2000) J Biol Chem 275, 33536-33541

IMPORTANT! THE USE OF MAB VASP-5C6 FOR DIAGNOSTIC OR THERAPEUTIC PURPOSES IS PATENTED! THE ANTIBODY IS SUPPLIED FOR RESEARCH USE ONLY!

Purification: The antibody was purified from serum-free cell culture supernatant by subsequent thiophilic adsorption and size exclusion chromatography.

Formulation: lyophilized from 1 ml 2 x PBS / 0.1 % Na-azide / PEG and Sucrose.

Reconstitution: Reconstitute with 1 ml H₂O (15 min, RT).

Stability: Upon reconstitution, aliquote and freeze in liquid nitrogen; reconstituted antibody can be stored frozen at -80°C up to 1 year. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.

Avoid repeated freeze / thaw cycles

Positive Control: none

Immunoblotting: 1 µg/ml for AP/BCIP/NBT (MTT) detection; 0.1 µg/ml for HRPO/ECL detection

Immunoprecipitation use at 1 - 10 µg per 10⁶ vanadate treated A431 cells

Immunocytochemistry use at 1-10 µg/ml. Mab VASP-16C2 may tolerate 0.5% formaldehyde fixation

ELISA: use at 0.05 µg/ml

All products are supplied for research and investigational use only. Not for use in humans.