Monoclonal Antibody to Phosphoserine (incl. pos. control) - Purified

Catalog No.: AM00116PU-N
Quantity: 0.1 mg

Background: Phosphorylation and dephosphorylation of cellular proteins are central steps in transducing extracellular signals to the cell nucleus. Phosphorylated epitopes may serve as docking sites for the assembly of protein complexes or may alter the 3-dimensional protein structure thus modulating enzymatic activity or the ability to undergo protein-protein-interactions. Modification of proteins on serine residues is mediated by serine/threonine kinases.

Host / Isotype: Mouse / IgG1
Clone: 7F12
Immunogen: Synthetic phosphopeptide conjugated to KLH

Format: State: Lyophilized purified IgG fraction
Purification: Subsequent Thiophilic Adsorption and Size Exclusion Chromatography
Buffer System: 1 ml 2 x PBS containing 0.09% Sodium Azide, PEG and Sucrose
Reconstitution: Restore with 1.0 ml H₂O (15 min, RT)

Applications: Western Blot: 1 µg/ml for HRPO/ECL detection.
Recommended blocking buffer: BSA/Tween 20 based blocking buffer.
DO NOT USE MILK OR CASEIN FOR BLOCKING!
ELISA: 0.05 µg/ml.
Immunoprecipitation: 1-10 µg per 10⁶ pervanadate-treated A431 cells.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognizes a broad range of serine-phosphorylated proteins in crude cell extracts, preferring positively charged amino acids directly neighboured to phosphoserine.

Note: The phosphoserine detection by monoclonal antibodies is always dependent on the surrounding amino acid sequence!

Species Reactivity: Tested: Human, Mouse, Rat and Dog.

Add. Information: This product contains a Positive Control (for details see "Protocols").

Storage: Store lyophilized (preferably in a desiccator) at -20°C and reconstituted (aliquote and freeze in liquid nitrogen) at -80°C.
Thaw aliquots at 37°C.
Thawed aliquots may be stored at 4°C up to 3 months.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.
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Protocols:

Positive control: pSer / pThr Molecular Weight Marker

Formulation:
The pSer/pThr molecular weight marker contains rabbit muscle phosphoproteins isolated by Fe^{3+}/IDA - affinity chromatography. Proteins are lyophilized from PBS/NaF/PEG/Sucrose/Bromophenolblue and Na - azide. After reconstitution the solution contains 0.09% Sodium Azide.

Stability:
Reconstitute by addition of 200 µl H2O. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min.

Application:
The pSer/pThr molecular weight marker is recommended for immunoblot applications. Use 20µl molecular weight marker per lane. Note: Use BSA based blot incubation buffers. Milk, Casein and Blotto might interfere with antibody - antigen interaction.

Storage:
Aliquote and store frozen. Avoid repeated freeze/thaw cycles. Shelf life: one year from despatch.

Pictures:

Figure 1. Phosphoserine Detection.
Phosphoprotein Positive Control was probed with:
Lane 1: mab 1C8 (IgM), 1 µg/ml.
Lane 2: mab 4A3 (IgM), 1 µg/ml.
Lane 3: mab 4A9 (IgM), 1 µg/ml.
Lane 4: mab 4H4 (IgM), 1 µg/ml.
Lane 5: mab 7F12 (IgG), 1 µg/ml.
Lane 6: mab 16B4 (IgM), 1 µg/ml.