Phosphothreonine Detection Kit

Order No.: **0702/PTHR-KIT**

www.nanotools.de

orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671

02/080507

Background and Specificity

Phosphorylation and dephosphorylation of cellular proteins are central steps in transducing extracellular signals to the nucleus. Phosphorylated epitopes may serve as docking sites for the assembley 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 tyrosine residues is mediated by protein tyrosin kinases. Tyrosine phosphorylation may alter the biological activity or mediate the assembly of protein complexes via the interaction of phosphotyrosine residues with SH2 or PTB domains.
Antibodies direct against phosphorylated epitopes recognize the phosphorylated amino acid in the context of the surrounding amino acid sequence. Recognition is therefore dependent on 2 criteria: 1) phosphorylation and 2) the surrounding amino acid motif. If one of the two criteria is not fulfilled, the antibody will not detect the phosphorylation site. Since the amino acid sequence varies between different phosphorylation sites, certain proteins - though phosphorylated - may not be detected by the antibody. Phosphorylation patterns in a given cell extract may differ when probed with different antibodies due to sequence specificity.

The Phosphothreonine Detection Kit contains 3 different phosphotyrosine specific monoclonal antibodies.

Do not use Milk or Casein based blocking and incubation buffers.

clone	isotype	order number
1E11	IgG1	0024-025
4D11	IgM	0025-025
14B3	IgG1	0026-025

Postive control

This product contains the following positive control for immunoblot applications:
#0901-PSRECO phosphoproteins from rabbit muscle

Mouse Monoclonal Antibody to

Phosphothreonine

clone 1E11

www.nanotools.de
orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671

Order No.: **0024-025/PTHR-1E11**
Size (µg) 25
Lot No.: 0024S

03/160307F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, rat, dog	WB, ELISA, IP	pattern			phosphothreonine conjugated to KLH

Background and Specificity:

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.

Mab PTHR-1E11 recognizes a broad range of threonine-phosphorylated proteins in crude cell extracts, providing a valuable tool for non-radioactive phosphothreonine detection.

Related Products

mab against Phosphoserine

#0018-100/pSer-1C8
#0019-100/pSer-4A3
#0020-100/pSer-4A9
#0021-100/pSer-4H4
#0022-100/pSer-7F12
#0023-100/pSer-16B4

mab against Phosphothreonine

#0025-100/pThr-4D11
#0026-100/pThr-14B3

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 / 0.09 % Na-azide / PEG and Sucrose.

Reconstitution: Reconstitute with 1 ml H_2O (15 min, RT).

Stability: For long-term storage, freeze lyophilizate upon arrival (-20°C). 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 1 week.

Avoid repeated freeze / thaw cycles.

Positive Control: #0901: phosphoserine/phosphothreonine positive control

Immunoblotting: 1 µg/ml for HRPO/ECL detection
Recommended blocking buffer: BSA/Tween 20 based blocking buffer.
DO NOT USE MILK OR CASEIN FOR BLOCKING!

Immunoprecipitation: use at 1 - 10 µg per 10^6 pervanadate-treated A431 cells

Immunocytochemistry: ND

ELISA: use at 0.05 µg/ml

Mouse Monoclonal Antibody to

Phosphothreonine

clone 4D11

www.nanotools.de
orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671

Order No.: **0025-025/PTHR-4D11**
Size (µg) 25
Lot No.: 0025S

03/160307F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgM	human, mouse, rat, dog	WB, ELISA, IP	pattern			phosphopeptide conjugated to KLH

Background and Specificity:

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.

Mab PTHR-4D11 recognizes a broad range of threonine-phosphorylated proteins in crude cell extracts, providing a valuable tool for non-radioactive phosphothreonine detection.

Related Products

mab against Phosphoserine

#0018-100/pSer-1C8
#0019-100/pSer-4A3
#0020-100/pSer-4A9
#0021-100/pSer-4H4
#0022-100/pSer-7F12
#0023-100/pSer-16B4

mab against Phosphothreonine

#0024-100/pThr-1E11
#0026-100/pThr-14B3

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 / 0.09 % Na-azide / PEG and Sucrose.

Reconstitution: Reconstitute with 1 ml H_2O (15 min, RT).

Stability: For long-term storage, freeze lyophilizate upon arrival (-20°C). 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 1 week.

Avoid repeated freeze / thaw cycles.

Positive Control: #0901: phosphoserine/phosphothreonine positive control

Immunoblotting: 1 µg/ml for HRPO/ECL detection
Recommended blocking buffer: BSA/Tween 20 based blocking buffer.
DO NOT USE MILK OR CASEIN FOR BLOCKING!

Immunoprecipitation: use at 1 - 10 µg per 10^6 pervanadate-treated A431 cells

Immunocytochemistry: ND

ELISA: use at 0.05 µg/ml

Mouse Monoclonal Antibody to

Phosphothreonine

clone 14B3

www.nanotools.de
orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671

Order No.: **0026-025/PTHR-14B3**
Size (µg) 25
Lot No.: 0026S

03/160307F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, rat, dog	WB, ELISA, IP	pattern			phosphopeptide conjugated to KLH

Background and Specificity:

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.

Mab PTHR-14B3 recognizes a broad range of threonine-phosphorylated proteins in crude cell extracts, providing a valuable tool for non-radioactive phosphothreonine detection.

Related Products

mab against Phosphoserine

#0018-100/pSer-1C8
#0019-100/pSer-4A3
#0020-100/pSer-4A9
#0021-100/pSer-4H4
#0022-100/pSer-7F12
#0023-100/pSer-16B4

mab against Phosphothreonine

#0024-100/pThr-1E11
#0025-100/pThr-4D11

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 / 0.09 % Na-azide / PEG and Sucrose.

Reconstitution: Reconstitute with 1 ml H_2O (15 min, RT).

Stability: For long-term storage, freeze lyophilizate upon arrival (-20°C). 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 1 week.

Avoid repeated freeze / thaw cycles.

Positive Control: #0901: phosphoserine/phosphothreonine positive control

Immunoblotting: 1 µg/ml for HRPO/ECL detection
Recommended blocking buffer: BSA/Tween 20 based blocking buffer.
DO NOT USE MILK OR CASEIN FOR BLOCKING!

Immunoprecipitation: use at 1 - 10 µg per 10^6 pervanadate-treated A431 cells

Immunocytochemistry: ND

ELISA: use at 0.05 µg/ml

pSer / pThr Molecular Weight Marker

www.nanotools.de
orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671

Order No.: **0901/PSERCO**

Lot: **0901**

Size **20 Blots**

03/100407F

Formulation

The pSer/pThr molecular weight marker contains rabbit muscle phosphoproteins isolated by Fe3+/IDA - affinity chromatography. Proteins are lyophilized from PBS/NaF/PEG/Sucrose/ Bromo-phenolblue and Na - azide. After reconstitution the solution contains 0.09% Na-azide.

Stability

Reconstitute by addition of 200 µl H_2O. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min.

Aliquote and store frozen. Avoid repeated freeze/thaw cycles.

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.