



Phosphothreonine Detection Kit

Order No.:

0702/PTHR-KIT

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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	lgG1	0024-025
4D11	IgM	0025-025
14B3	lgG1	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

CIOI						fax:	+49-7641-455 670		
Order Size (μι Lot No.	g)	0024-02 25 0024S	5/PTHR-1E11			03/1603	307F		
lsotype	Species Reactiv	vity Applicatio	ons Mol. Weight	Ref.Cell Line	Epitope		Immunogen		
lgG1	human, mouse, dog	rat, WB, ELISA	A, IP pattern				phosphothreonine conjugated to KLH		
Backgroun	nd and Specificity	<u>/:</u>				Related Products			
extracellular the assemb modulating Modification Mab PTHR-	r signals to the cell ly of protein compl enzymatic activity n of proteins on sel -1E11 recognizes	I nucleus. Phosp lexes or may alter or the ability to u rine residues is n a broad range of	horylated epitopes or the 3-dimensiona undergo protein-prot nediated by serine/t	hreonine kinases. rylated proteins in ci	ng sites for us	#0018-100/pSer- #0019-100/pSer- #0020-100/pSer- #0021-100/pSer- #0022-100/pSer- #0023-100/pSer-	4A3 4A9 4H4 7F12 16B4 • Phosphothreonine 4D11		
Purificatior	5			m-free cell culture c adsorption and size	9				
Formulatio		lyophilized from ´ Sucrose.	I ml 2 x PBS / 0.09	% Na-azide / PEG a	Ind				
Reconstitu	tion:	Reconstitute with	$1 \text{ ml H}_2\text{O}$ (15 min,	RT).					
Stability:	-	Upon reconstituti reconstituted ant Thaw aliquots at 1 week.	on, aliquote and fre	lizate upon arrival (-2 eze in liquid nitroger l frozen at -80°C up uots may be stored a	n; to 1 year.				
		-	-						
Positive Co Immunoblo	otting:	1 μg/ml for HRP0 <u>Recommended</u> blocking buffer.	D/ECL detection	onine positive contro SA/Tween 20 based OR BLOCKING!					
lmmunopre Immunocyt ELISA:	tochemistry:	use at 1 - 10 µg ND use at 0.05 µg/m	- -	e-treated A431 cells					

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



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orders & support:



Mouse Monoclonal Antibody to

Phosphothreonine

clor	ne 4D11				88		info@nanotools.de +49-7641-455 670 +49-7641-455 671
Order No.: Size (μg) Lot No.:		0025-025 25 0025S					
					000	03/1603	
Isotype	Species Reactiv			Ref.Cell Line	Epitope		Immunogen
IgM	dog	rat, WB, ELISA,	IP pattern				phosphopeptide conjugated to KLH
Backgrour	nd and Specificity	<u>/:</u>				Related Pr	oducts
extracellula the assemb modulating Modification	r signals to the cell ly of protein comp enzymatic activity of proteins on se -4D11 recognizes	Il nucleus. Phosph lexes or may alter or the ability to un rine residues is ma	orylated epitopes r the 3-dimensional dergo protein-prot ediated by serine/th preonine-phosphor	nreonine kinases. rylated proteins in cl	ng sites for us	#0018-100/pSer #0019-100/pSer #0020-100/pSer #0021-100/pSer #0022-100/pSer #0023-100/pSer	4A3 4A9 4F12 16B4 Phosphothreonine 1E11
Purification	:	The antibody was supernatant by sul exclusion chromat	osequent thiophilic	n-free cell culture adsorption and size	e		
Formulatio		lyophilized from 1 Sucrose.	ml 2 x PBS / 0.09 9	% Na-azide / PEG a	ind		
Reconstitu	tion:	Reconstitute with	I ml H_2O (15 min, F	RT).			
Stability:		Upon reconstitutio reconstituted antib	n, aliquote and free ody can be stored	izate upon arrival (-2 eze in liquid nitroger frozen at -80°C up lots may be stored a	n; to 1 year.		
		Avoid repeated fi	eeze / thaw cycle	s.			
Positive Co	ontrol:	#0901: phosphose	rine/phosphothreo	nine positive contro	I		
Immunoblo	-	1 μg/ml for HRPO <u>Recommended b</u> blocking buffer. DO NOT USE MIL	locking buffer: B	SA/Tween 20 based DR BLOCKING!	1		
Immunopre	ecipitation:	use at 1 - 10 µg p	er 10 ⁶ pervanadate	-treated A431 cells			
-	-	ND					
ELISA:	-	use at 0.05 µg/ml					

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Mouse Monoclonal Antibody to

Phosphothreonine

clone 14B3

0101						88	fax:	+49-7641-455 671
Orde	r No.:	0026	-025/PT	THR-14B3		Ö		
Size (µ	g)	25				80		
Lot No.	.:	0026S					03/1603	07F
Isotype	Species Reactiv	ity Appli	cations	Mol. Weight	Ref.Cell Line	Epitope		Immunogen
lgG1	human, mouse, dog	rat, WB, E	ELISA, IP	pattern				phosphopeptide conjugated to KLH
Backgrour	nd and Specificity	<u>':</u>					Related Pro	oducts
 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. 							#0018-100/pSer-1 #0019-100/pSer-4 #0020-100/pSer-4 #0021-100/pSer-4 #0022-100/pSer-7 #0023-100/pSer-1	A3 A9 F12 6B4 Phosphothreonine E11
Purificatio	:		by subsec	quent thiophilic a	i-free cell culture adsorption and size	3		
Formulatio		yophilized f Sucrose.	rom 1 ml 2	2 x PBS / 0.09 %	% Na-azide / PEG a	Ind		
Reconstitu	ition:	Reconstitute	e with 1 ml	H₂O (15 min, R	T).			
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 repe	ated freez	e / thaw cycles	5.			
Positive Co	ontrol:	#0901: phos	sphoserine	e/phosphothreor	nine positive contro	I		
Immunoblo		blocking but	ided bloc		A/Tween 20 basec	1		
Immunopre	ecipitation:	use at 1 - 10) ug per 1	0 ⁶ pervanadate-	treated A431 cells			
-	-							
ELISA:	-	use at 0.05	µg/ml					

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pSer / pThr Molecular Weight
Markerwww.nanotools.de
orders & support:
email: info@nanotools.de
phone: +49-7641-455 670
fax: +49-7641-455 671Order No.:0901/PSERCOLot:0901Size20 Blots

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.

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

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

ApplicationThe 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.

Note: Use BSA based blot incubation buffers. Milk, Casein and Blotto might interfere with antibody - antigen interaction.