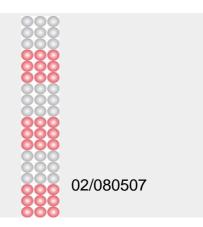




### **Phosphoserine Detection Kit**

Order No.:

0701/PSER-KIT



#### **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 Phosphoserine Detection Kit contains 6 different phosphotyrosine specific monoclonal antibodies.

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

isotype	order number
IgM	0018-025
IgM	0019-025
IgM	0020-025
IgM	0021-025
lgG1	0022-025
IgM	0023-025
	IgM IgM IgM IgM IgG1

#### **Postive control**

This product contains the following positive control for immunoblot applications: #0901-PSRECO phosphoproteins from rabbit muscle BIOMOL GmbH Waidmannstr. 35 22769 Hamburg info@biomol.de www.biomol.de Phone: +49-40-8532600 or 0800-2466651 (D) Fax: +49-40-85326022 or 0800-2466652 (D)





Mouse Monoclonal Antibody to

### **Phosphoserine** clone 1C8 0018-025/PSER-1C8 **Order No.:** 25 Size (µg) Lot No.: 0018S



Isotyp gen ΙgΜ serine d to KLH Backg rine Phosph extrace the ass modula Modific Please on the eonine Mab PS extracts Purifica Formu Recons Stabilit 3 4 5 6 Positiv Immun

> **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  $\mu$ g/ml

ot No.	-		00185			ŠÕÕ	03/160307	7F
ре	Species	Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope		Immunoge
	human, dog	mouse, rat,	WB, ELISA, IP	pattern				phosphose conjugated
groun	d and Sp	ecificity:				<u>R</u>	elated Proc	lucts
ellular sembl ating o cation e note surro SER-	<ul> <li>signals to signals to y of protection of prot</li></ul>	o the cell nuclein complexes c activity or the ns on serine r osphoserine amino acid s gnizes a broa	leus. Phosphoryla or may alter the e ability to underg esidues is media detection by mo sequence! d range of serine	ated epitopes m 3-dimensional p go protein-prote ted by serine/th pnoclonal antib -phosphorylated		g sites for #0 Is #0 ependent #0 rot #0 for #0 fo	nab against Pl           0019-100/pSer-4A3           0020-100/pSer-4A4           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0022-100/pSer-7F1           0025-100/pSer-7F1           0025-100/pThr-1E1           0025-100/pThr-4D1           0025-100/pThr-4D1           0026-100/pThr-14E	4 12 34 hosphothre(
cation	:	super	antibody was puri matant by subsectsion chromatogra	quent thiophilic a	-free cell culture adsorption and size			
ulatio	n:	lyoph Sucro		x PBS / 0.09 %	ő Na-azide / PEG a	nd		
nstitut	tion:	Reco	nstitute with 1 ml	$H_2O$ (15 min, R	T).			
ity:		Upon recor	reconstitution, a stituted antibody aliquots at 37°C	liquote and free can be stored f	ate upon arrival (-2 ze in liquid nitroger rozen at -80°C up t ts may be stored a	n; o 1 year.		
		Avoi	d repeated freez	e / thaw cycles	5.			123
ve Co	ontrol:	#090	1: phosphoserine	/phosphothreor	nine positive control			
noblo	tting:	Reco block	ml for HRPO/EC ommended block ing buffer. IOT USE MILK C	king buffer: BS	A/Tween 20 based R BLOCKING!		200 116 66 45 31	

Immunoprecipitation: use at 1 - 10 µg per 10<sup>6</sup> pervanadate-treated A431 cells ND Immunocytochemistry: ELISA: use at 0.05 µg/ml

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Fax:



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

Mouse Monoclonal Antibody to

## Phosphoserine

clone 4A3

Orde	r No.:	0019-025/PS	0019-025/PSER-4A3						
Size (µ	g)	25			88				
Lot No	.:	0019S			88	03/160307	=		
lsotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope		nmunogen		
IgM	human, mouse, ra dog	at, WB, ELISA, IP	pattern				hosphoserine onjugated to KLH		
Backgrour	nd and Specificity:					Related Produ	<u>icts</u>		
<ul> <li>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.</li> <li>Please note that phosphoserine detection by monoclonal antibodies is always dependent on the surrounding amino acid sequence!</li> <li>Mab PSER-4A3 recognizes a broad range of serine-phosphorylated proteins in crude cell extracts, preferring positively charged amino acids directly neighboured to phosphoserine.</li> </ul>						mab against Pho #0018-100/pSer-1C8 #0020-100/pSer-4A9 #0021-100/pSer-4H4 #0022-100/pSer-7F12 #0023-100/pSer-16B4 mab against Pho #0024-100/pThr-1E11 #0025-100/pThr-4D11 #0026-100/pThr-4B3	osphothreonine		
Purification Formulation	sup exc	lusion chromatogra	quent thiophilic a aphy.	-free cell culture adsorption and size 6 Na-azide / PEG a					
	Sucrose.								
Reconstitu		constitute with 1 m							
Stability:	Upo reco Tha	on reconstitution, a onstituted antibody	liquote and free can be stored f	ate upon arrival (-2 ze in liquid nitroger rozen at -80°C up t ots may be stored a	n; to 1 year.				
	Avo	oid repeated freez	e / thaw cycles	5.			1 2 3 4 5 6		
Positive Co Immunoble	otting: 1 μ <u>Re</u> blo	g/ml for HRPO/EC	L detection king buffer: BS	iine positive contro A/Tween 20 based R BLOCKING!		200 — 116 — 66 — 45 —			
Immunocy	tochemistry: ND		0 <sup>6</sup> pervanadate-	treated A431 cells		with	Positive Control was prob		
ELISA: use at 0.05 µg/ml lane 1: mab 1C8 (lgM), 1 µg/ml lane 2: mab 4A3 (lgM), 1 µg/ml									

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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

Mouse Monoclonal Antibody to

# **Phosphoserine**

clone 4A9

Orde	r No.:	0020-025/PSER-4A9				88			
Size (μg)		25			88				
Lot No	.:	0020S			88	03/160307F			
lsotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen			
IgM	human, mouse, ra dog	at, WB, ELISA, IP	pattern			phosphoserine conjugated to KLH			
Backgrou	nd and Specificity:					Related Products			
<ul> <li>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.</li> <li>Please note that phosphoserine detection by monoclonal antibodies is always dependent on the surrounding amino acid sequence!</li> <li>Mab PSER-4A9 recognizes a broad range of serine-phosphorylated proteins in crude cell extracts, preferring positively charged amino acids directly neighboured to phosphoserine.</li> </ul>						mab against Phosphoserine         #0018-100/pSer-1C8         #0019-100/pSer-4A3         #0021-100/pSer-4H4         #0022-100/pSer-7F12         #0023-100/pSer-16B4         mab against Phosphothreonine         #0024-100/pThr-1E11         #0025-100/pThr-14D11         #0026-100/pThr-14B3			
Purificatio	sup	e antibody was pur pernatant by subse clusion chromatogra	quent thiophilic a		)				
Formulatio		philized from 1 ml 2 crose.	2 x PBS / 0.09 %	6 Na-azide / PEG a	ind				
Reconstitu	ition: Re	constitute with 1 m	$H_2O$ (15 min, R	Т).					
Stability:	Up rec	20°C). n; to 1 year. at 4°C up to							
	Av	oid repeated freez	e / thaw cycles	<b>.</b>		1 2 3 4 5 6			
Positive C	ontrol: #09	901: phosphoserine	e/phosphothreon	nine positive contro	I				
Immunoble	Re blo	ug/ml for HRPO/EC commended bloc ocking buffer. O NOT USE MILK (	king buffer: BS		i	200 116 66 45 31 			
Immunopr	ecipitation: use	e at 1 - 10 µg per 1	0 <sup>6</sup> pervanadate-	treated A431 cells		Phosphoserine Detection			
Immunocy	Immunocytochemistry: ND					Phosphoprotein Positive Control was probe with			
ELISA: use at 0.05 μg/ml						lane 1: mab 1C8 (IgM), 1 μg/ml lane 2: mab 4A3 (IgM), 1 μg/ml			

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lane 3: mab 4A9 (IgM), 1  $\mu$ g/ml

lane 4: mab 4H4 (IgM), 1 µg/ml

lane 5: mab 7F12 (IgG), 1  $\mu g/ml$  lane 6: mab 16B4 (IgM), 1  $\mu g/ml$ 

Mouse Monoclonal Antibody to

# Phosphoserine

clone 4H4

Orala	- NI	0004 005/00			88	88	
	r No.:	0021-025/PS	DER-4H4		Š2	80	
Size (µ		25			Ŏ		
Lot No	.:	0021S			ŏŏ	03/1603	)7F
Isotype	Species Reactivi	ity Applications	Mol. Weight	Ref.Cell Line	Epitope		Immunogen
IgM	human, mouse, dog	rat, WB, ELISA, IP	pattern				phosphoserine conjugated to KLH
Backgrou	nd and Specificity:					Related Pro	ducts
<ul> <li>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.</li> <li>Please note that phosphoserine detection by monoclonal antibodies is always dependent on the surrounding amino acid sequence!</li> <li>Mab PSER-4H4 recognizes a broad range of serine-phosphorylated proteins in crude cell extracts, preferring positively charged amino acids directly neighboured to phosphoserine.</li> </ul>						#0018-100/pSer-10 #0019-100/pSer-4/ #0020-100/pSer-4/ #0022-100/pSer-70 #0023-100/pSer-10	A3 512 5884 <b>Phosphothreonine</b> 511
Purificatio	S	he antibody was pur upernatant by subse exclusion chromatogra	quent thiophilic a		9		
Formulatio	•	ophilized from 1 ml 2 Sucrose.	2 x PBS / 0.09 %	% Na-azide / PEG a	Ind		
Reconstitu	ition: R	Reconstitute with 1 m	$I H_2O$ (15 min, R	tT).			
Stability:	U re T	For long-term storage Jpon reconstitution, a econstituted antibody Thaw aliquots at 37°C week.	liquote and free can be stored f	ze in liquid nitroger frozen at -80°C up	n; to 1 year.		
	Α	void repeated freez	e / thaw cycles	3.			1 2 3 4 5 6
Positive C	ontrol: #	0901: phosphoserine	e/phosphothreor	nine positive contro	I		
Immunoble	R b	l μg/ml for HRPO/EC Recommended bloc blocking buffer. DO NOT USE MILK (	king buffer: BS		3	200 116 66 45 31	
Immunopr	ecipitation: u	use at 1 - 10 µg per 1	0 <sup>6</sup> pervanadate-	treated A431 cells		Phosphoseria Phosphoprote	ne Detection in Positive Control was probe
Immunocy	tochemistry: N	1D				with	
ELISA:         use at 0.05 μg/ml         lane 1: mab 1C8 (lgM), 1 μ           lane 2: mab 4A3 (lgM), 1 μ         lane 3: mab 4A9 (lgM), 1 μ						A3 (IgM), 1 μg/ml	

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Fax:

Mol. Weight

pattern

**Ref.Cell Line** 



nand PTECHNU

Mouse Monoclonal Antibody to

### **Phosphoserine**

**Species Reactivity** 

clone 7F12

#### 0022-025/PSER-7F12 Order No.: 25

human, mouse, rat, WB, ELISA, IP

Size (µg) Lot No.:

Isotype

lgG1

0022S

Applications



03/160307F Immunogen phosphoserine conjugated to KLH

#### **Background and Specificity:**

dog

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.

#### Please note that phosphoserine detection by monoclonal antibodies is always dependent on the surrounding amino acid sequence!

Mab PSER-7F12 recognizes a broad range of serine-phosphorylated proteins in crude cell extracts, preferring positively charged amino acids directly neighboured to phosphoserine.

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.v
Positive Control:	#0901: phosphoserine/phosphothreonine positive control
Immunoblotting:	1 μg/ml for HRPO/ECL detection <u>Recommended blocking buffer:</u> BSA/Tween 20 based blocking buffer. DO NOT USE MILK OR CASEIN FOR BLOCKING!
Immunoprecipitation:	use at 1 - 10 $\mu g$ per 10 $^{\rm 6}$ pervanadate-treated A431 cells
Immunocytochemistry:	ND
ELISA:	use at 0.05 μg/ml

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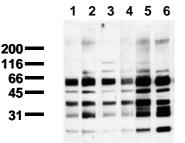
### **Related Products**

#### mab against Phosphoserine

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

#### mab against Phosphothreonine

#0024-100/pThr-1E11 #0025-100/pThr-4D11 #0026-100/pThr-14B3



**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

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Mouse Monoclonal Antibody to

# Phosphoserine

clone 16B4

Immunocytochemistry:

ELISA:

ND

use at 0.05 µg/ml

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	Order Size (μα Lot No.	)	0023-025/P\$ 25 0023S	SER-16B4			03/16030	)7F	
1	Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope		Immunogen	
	lgM	human, mouse, rat dog	, WB, ELISA, IP	pattern		pSer - Pro	.;pSer - Lys	phosphopeptide conjugated to KLH	
	Backgroun	d and Specificity:					Related Pro	<u>ducts</u>	
<ul> <li>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.</li> <li>Please note that phosphoserine detection by monoclonal antibodies is always dependent on the surrounding amino acid sequence!</li> <li>Mab PSER-16B4 recognizes a broad range of serine-phosphorylated proteins in crude cell extracts, preferring positively charged amino acids directly neighboured to phosphoserine.</li> </ul>							#0018-100/pSer-1C8 #0019-100/pSer-4A3 #0020-100/pSer-4A9 #0021 100/pSer-4H4		
Purification: The antibody was purified from serum-free cell culture supernatant by subsequent thiophilic adsorption and size exclusion chromatography.									
	Formulatio	n: lyoph Sucr		2 x PBS / 0.09 %	5 Na-azide / PEG a	nd			
	Reconstitut	ion: Reco	onstitute with 1 m	I H₂O (15 min, R	Т).				
	Stability:	Upor reco Thav 1 we	n reconstitution, an Instituted antibody v aliquots at 37°C	liquote and free can be stored f . Thawed aliquo	ate upon arrival (-2 ze in liquid nitrogen rozen at -80°C up t ts may be stored a	; o 1 year.			
			-	-	ine positive control			1 2 3 4 5 6	
	Positive Co Immunoblo	tting: 1 μg <u>Rec</u> bloc	/ml for HRPO/EC	L detection king buffer: BS	A/Tween 20 based		200 116 66 45 31		
	Immunopre	cipitation: use	at 1 - 10 µg per 1	0 <sup>6</sup> pervanadate-	treated A431 cells		Phosphoserir Phosphoprotei	ne 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



Lot:

Size



03/100407F

# pSer / pThr Molecular Weight Marker Order No.: 0901/PSERCO

0901

20 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/ Bromophenolblue and Na - azide. After reconstitution the solution contains 0.09% Na-azide.

StabilityReconstitute by addition of 200  $\mu$ l H2O. After complete solubilization<br/>add 200  $\mu$ l 2x SDS-PAGE sample buffer, mix and incubate at 90°C<br/>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 DSA based blat insubation buffers. Milk: Casein and Blatter.

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