

# Biotin Anti-Phosphothreonine antibody ab9340

[1 References](#) [2 Images](#)

### Overview

<b>Product name</b>	Biotin Anti-Phosphothreonine antibody
<b>Description</b>	Biotin Rabbit polyclonal to Phosphothreonine
<b>Host species</b>	Rabbit
<b>Conjugation</b>	Biotin
<b>Specificity</b>	Reacts with free phosphothreonine but does not react with phosphoserine, threonine or phosphotyrosine.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Species independent
<b>Immunogen</b>	Chemical/ Small Molecule corresponding to Phosphothreonine conjugated to keyhole limpet haemocyanin.
<b>Positive control</b>	Use mouse brain extract for immunoblotting. Use synthetic phosphopeptide (on threonine) for ELISA.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 6 Preservative: 0.02% Sodium azide
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Immunoaffinity chromatography with phosphothreonine-agarose.
<b>Clonality</b>	Polyclonal

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab9340 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		
IP		
ELISA		

### Application notes

ELISA(kinase assay): Use at 0.5 µg/mL

Western blot: Use at 4µg/mL

IP: Use at 10 µg/250 µg protein sample

Will detect 100 ng of phosvitin in Western Blots and 0.5 ng of phosvitin with ELISA.

Can be used for non-radioactive protein kinase assay (ELISA) using biotinylated peptide substrate and immunoblotting of abundant phosphoproteins.

It is not recommended for immunoblotting of trace cellular phosphoproteins. Acetone precipitation of the protein extract followed by SDS denaturation is recommended for successful immunoprecipitation.

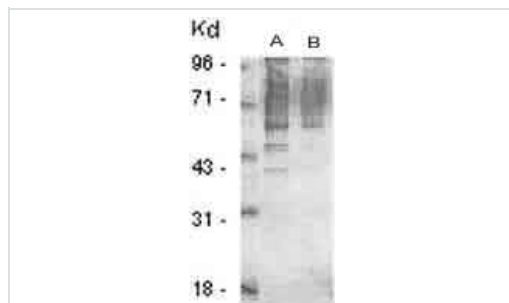
## Target

### Relevance

Phosphorylation of threonine residues is associated with many growth factors and oncogene protein kinases, and is important for cell signaling in activation, proliferation and differentiation. Protein phosphorylation and dephosphorylation are basic mechanisms for the modification of protein function in eukaryotic cells. Phosphorylation is a rare post-translational event in normal tissue, however, the abundance of phosphorylated cellular proteins increases several fold following various activation processes which are mediated through phosphotyrosine, phosphoserine or phosphothreonine (p-tyr/p-ser/p-thr). Many signal transduction pathways, such as the EGF, PDGF and insulin receptor systems, contain tyr/ser/thr kinase which phosphorylate specific tyr/ser/thr residues upon binding of ligands to their receptors. T cell antigen receptor complex or the receptors for some hemopoietic growth factors may stimulate these phosphorylation associated kinases, and cells transformed by viral oncogenes contain elevated levels of phosphorylated tyr/ser/thr. An understanding of transformation by oncogenes and mitogenic processes of growth factors depends on the identification of their substrate and a subsequent determination of how phosphorylation affects their properties. Studies on the role of phosphorylated proteins have been hampered by their low abundance and the problem of distinguishing the various types of phosphorylated proteins. The most common procedure is to label intact cells or small tissue fragments with <sup>32</sup>P and subsequently to isolate <sup>32</sup>P labeled proteins by conventional biochemical methods. In order to identify the specific amino acids that undergo phosphorylation, additional long and tedious procedures for phosphoamino acid analysis are required. Immunoblotting of cellular proteins with antibodies directed against phosphoamino acids is advantageous as it does not involve <sup>32</sup>P labeling, and can therefore be employed to monitor alterations in phosphorylation of specific proteins as they occur in intact organs or the whole animal. Indeed, mono and polyclonal antibodies directed against phosphorylated residues

have been generated and found useful as analytical and preparative tools because they enable the rapid identification, quantification and immunoaffinity isolation of phosphorylated cellular proteins.

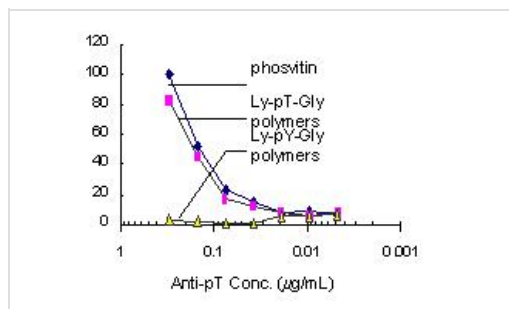
## Images



Western blot - Biotin Anti-Phosphothreonine antibody (ab9340)

Immunoblotting of fetal mouse brain extract (125 ug - A and 25 ug - B)

Immunoblotting of fetal mouse brain extract (125 ug - A and 25 ug - B)



ELISA - Biotin Anti-Phosphothreonine antibody (ab9340)

Antibody Capture ELISA

Label: immobilized antigen

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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