

Product Information



Phosphothreonine (Ascites) Monoclonal Antibody (Clone 18F6)

Catalog No. 10221

Contents:	This vial contains antibody from clarified ascites containing 0.01% sodium azide.
Host:	Mouse, clone 18F6
Isotype:	IgG _{1κ}
Stability:	≥1 year at -20°C
Applications:	ELISA and western blot (WB). The recommended starting dilution for ELISA and WB is 1:2,000 to 1:10,000. The optimal working dilutions for other applications should be determined empirically.

Protein phosphorylation is an important post-translational modification that serves many key functions to regulate a protein's activity, localization, and protein-protein interactions. Phosphorylation is catalyzed by various specific protein kinases, which involves removing a phosphate group from ATP and covalently attaching it to a recipient protein that acts as a substrate. Most kinases act on both serine and threonine; others act on tyrosine, and a number (dual specificity kinases) act on all three. Because phosphorylation can occur at multiple sites on any given protein, it can therefore change the function or localization of that protein at any time.¹ Changing the function of these proteins has been linked to a number of diseases, including cancer, diabetes, heart disease, inflammation, and neurological disorders.²⁻⁴

References

1. Goto, H., Kiyono, T., Tomono, Y., *et al.* Complex formation of Plk1 and INCENP required for metaphase-anaphase transition. *Nature Cell Biology* **8**, 180-187 (2005).
2. Blume-Jensen, P. and Hunter, T. Oncogenic kinase signalling. *Nature* **411**, 355-365 (2001).
3. Downward, J. The ins and outs of signalling. *Nature* **411**, 759-762 (2001).
4. Pawson, T. and Saxton, T.M. Signaling networks - Do all roads lead to the same genes? *Cell* **97**, 675-678 (1999).

Related Product

Phosphotyrosine (Ascites) Monoclonal Antibody (Clone 13F9) - Cat. No. 10222

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

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