

# p-Thr (H-2): sc-5267



The Power to Question

## BACKGROUND

Protein kinases catalyze the phosphorylation of serine, threonine or tyrosine residues in target substrates, providing a mechanism of control for myriad cellular signaling pathways. Threonine phosphorylation plays a role in the activation of ERK and JNK MAP kinases, which are dually phosphorylated on tyrosine and threonine residues by MEK family kinases. Several families of kinases phosphorylate both serine and threonine residues in target substrates, including the Raf, Rsk, ROCK, PAK, Ak and PKC families of protein kinases. Antibodies to phosphothreonine may be used for the characterization of proteins with phosphorylated threonine residues and for the elucidation of cellular pathways involving threonine phosphorylation.

## SOURCE

p-Thr (H-2) is a mouse monoclonal antibody raised against p-Thr.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-Thr (H-2) is available conjugated to agarose (sc-5267 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-5267 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-5267 PE), fluorescein (sc-5267 FITC), Alexa Fluor® 488 (sc-5267 AF488), Alexa Fluor® 546 (sc-5267 AF546), Alexa Fluor® 594 (sc-5267 AF594) or Alexa Fluor® 647 (sc-5267 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5267 AF680) or Alexa Fluor® 790 (sc-5267 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, p-Thr (H-2) is available conjugated to biotin (sc-5267 B), 200 µg/ml, for WB, IHC(P) and ELISA.

Blocking peptide available for competition studies, sc-5267 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

p-Thr (H-2) is recommended for detection of phosphothreonine-containing proteins of broad origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non-cross reactive with phosphotyrosine or phosphoserine.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or human bladder extract: sc-363751.

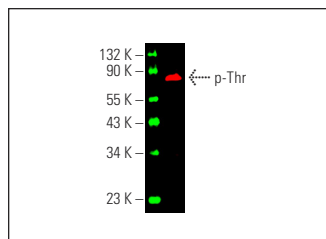
## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

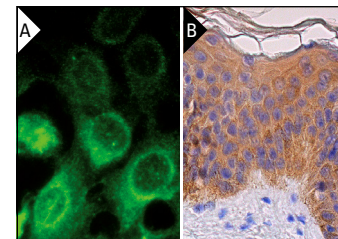
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



p-Thr (H-2) Alexa Fluor® 790: sc-5267 AF790. Direct near-infrared western blot analysis of Thr phosphorylation in human bladder tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 680: sc-516730.



p-Thr (H-2): sc-5267. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). p-Thr (H-2) HRP: sc-5267 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes (B).

## SELECT PRODUCT CITATIONS

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- Liu, R., et al. 2015. CDK1-mediated SIRT3 activation enhances mitochondrial function and tumor radioresistance. *Mol. Cancer Ther.* 14: 2090-2102.
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- Ni, Y., et al. 2017. TNFα alters occludin and cerebral endothelial permeability: role of p38MAPK. *PLoS ONE* 12: e0170346.
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- Kim, Y.J., et al. 2020. O-GlcNAc stabilizes SMAD4 by inhibiting GSK-3β-mediated proteasomal degradation. *Sci. Rep.* 10: 19908.
- Li, X., et al. 2021. PFKF facilitates ATG4B phosphorylation during amino acid deprivation-induced autophagy. *Cell. Signal.* 82: 109956.
- Ma, H., et al. 2022. PBK drives PARP inhibitor resistance through the TRIM37/NFκB axis in ovarian cancer. *Exp. Mol. Med.* 54: 999-1010.
- Fu, Y., et al. 2023. AKT1 regulates UHRF1 protein stability and promotes the resistance to abiraterone in prostate cancer. *Oncogenesis* 12: 1.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.