Revision 3

Store at -20C

#4491

Phospho-Tpl2 (Ser400) Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	R	Transfected Only	60, 62	Rabbit	#P41279	1326

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-Tpl2 (Ser400) Antibody detects transfected Tpl2 only when phosphorylated at Ser400. This antibody does not cross-react with other phosphorylated MAP kinase kinase kinases.

Species predicted to react based on 100% sequence homology

Human, Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a mixture synthetic phosphorylated peptides corresponding to residues surrounding Ser400 of human, mouse and rat Tpl2. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Tpl2 (tumor progression locus 2), also known as COT (cancer osaka thyroid), is a serine/threonine kinase expressed primarily in hematopoietic tissues, lung and liver (1). Over-expression of Tpl2 potentiates MAP kinase pathways through MEK1 and SEK1, as well as through MKK6 and MEK5 (2,3). Tpl2 is also engaged in NF-κB activation through NF-κB inducing kinase (NIK), or by inducing phosphorylation and degradation of the NF-κB precusor, p105 NF-κB1 (4,5). Ser400 of Tpl2 is phosphorylated in an Akt-dependent manner. This phosphorylation is required for Tpl2-induced NF-κB-dependent transcription (6). Tpl2 also activates caspase-3 by promoting the assembly of a protein complex of Apaf1 (apoptotic protease-activating factor 1), caspase-9, Tpl2, adaptor protein Tvl1 and procaspase-3 (7).

Background References

1. Patriotis, C. et al. (1993) *Proc Natl Acad Sci U S A* 90, 2251-5.
2. Salmeron, A. et al. (1996) *EMBO J* 15, 817-26.
3. Chiariello, M. et al. (2000) *Mol Cell Biol* 20, 1747-58.
4. Lin, X. et al. (1999) *Immunity* 10, 271-80.
5. Belich, M.P. et al. (1999) *Nature* 397, 363-8.
6. Kane, L.P. et al. (2002) *Mol Cell Biol* 22, 5962-74.
7. Patriotis, C. et al. (2001) *J Cell Physiol* 187, 176-87.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

R: Rat

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