Revision 1

#3911 Store at -20C

Phospho-p56Dok-2 (Tyr351) Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Transfected Only	56 to 58	Rabbit	#O60496	9046

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-p56Dok-2 (Tyr351) Antibody detects transfected levels of p56Dok-2 only when phosphorylated at tyrosine 351. The antibody does not cross-react with other tyrosine phosphorylated p62Dok family members.

Species predicted to react based on 100% sequence homology:

Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr351 of mouse p56Dok-2. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Docking proteins are substrates of tyrosine kinases that function in the recruitment and assembly of specific signal transduction molecules. There are five members in the p62dok family, p62Dok (Dok-1), p56Dok-2 (Dok-2, or DoK-R), Dok-3, Dok-4 and Dok-5 (1-3), characterized by the presence of an amino-terminal PH domain, a central PTB domain and numerous potential sites of tyrosine phosphorylation. Tyrosine phosphorylation of p56Dok-2 occurs upon stimulation of cells with a variety of stimuli, or in cells transformed by oncogenic tyrosine kinases such as v-Src and Bcr-Abl (3-5). Based on the presence of several signaling domains (PH, PTB domain, tyrosine residue and proline-rich regions), it has been proposed that the p62dok family act as docking proteins that link RTKs to signal transduction pathways. p56Dok-2 has been proposed to be a negative regulator of cytokine-induced proliferation in T cells (5). Phosphorylated Tyr351 of p56Dok-2 mediates an association with the SH2 domain of Nck (4).

Background References

1. Master, Z. et al. (2001) *EMBO J.* 20, 5919-5928.
2. Grimm, J. et al. (2001) *J. Cell. Biol.* 154, 345-354.
3. Cristofano, A. D. et al. (1998) *J. Biol. Chem.* 273, 4827-4830.
4. Jones, N. and Dumont, D.J. (1999) *Curr. Biol.* 9, 1057-1060.
5. Nemorin, J.G. and Duplay, P. (2000) *J. Biol. Chem.* 275, 14590-14597.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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