

unphosphorylated Dok1 (Tyr-362) Peptide

Cat. # DX2305

Size 50 µg

Background:

Doks are a family of adaptor proteins that recruit SH2-containing molecules involved in various cell signaling pathways. Six Dok proteins (Dok1 to Dok6) have been identified and each has an N-terminal pleckstrin homology domain, a central phosphotyrosine binding domain, and a C-terminal region containing multiple tyrosine residues. When phosphorylated, these tyrosines can serve as docking sites for SH2 domain-containing proteins. Dok1 (p62dok) has been shown to bind Ras-GAP, Nck, and Csk. Several tyrosine phosphorylation sites have been identified for Dok1. One site, Tyr-362 (Tyr-361 mouse), is phosphorylated by c-Abl, is required for Nck binding, and may be critical for filopodia formation during fibroblast spreading on fibronectin. Alternatively, Dok1 activity is also regulated by serine phosphorylation. IκB Kinase β phosphorylates several serine sites including Ser-450 *in vitro*, and TNFα, IL-1, and radiation treatment lead to phosphorylation of Ser-443, Ser-446, and Ser-450 *in vivo*. Phosphorylation of these serine sites may be required for Dok-mediated inhibition of MAPK signaling and stimulation of cell motility.

References

Noguchi, T. et al. (1999) EMBOJ 18(7):1748.
Kashige, N. et al. (2000) Proc. Nat. Acad. Sci. 97(5):2093.
Lee, S. et al. (2004) Proc. Nat. Acad. Sci. 101(50):17416.
Woodring, P.J. (2004) J Cell Biol. 165(4):493.

Peptide Sequence:

Unphosphorylated Dok1 (Tyr-362) synthetic peptide corresponding to amino acids surrounding tyrosine 362 in human Dok1. This sequence is conserved in Dok1 from rat and mouse (Tyr-361), and has high homology to Dok2 (Tyr-337). The site is not conserved in other Dok family members.

Buffer and Storage:

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.
Store at -20°C. Stable for 1 year.

Applications:

Blocking 1:1000
ELISA 50 ng/well

Specificity:

This peptide can be used as an unphosphorylated control peptide for Dok1 (Tyr-362) antibody (DP2241) in ELISA, WB blocking, and ICC experiments.

End user should determine optimal concentration dependent on the concentration of the antibody.
Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.
ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Related Products:

DP2241 Dok1 (Tyr-362), phospho-specific [Conserved site] Rabbit Polyclonal
DX2245 phospho-Dok1 (Tyr-362) Peptide
DP2181 Dok1 (Ser-450), phospho-specific Rabbit Polyclonal
DX2185 phospho-Dok1 (Ser-450) Peptide
DX2275 unphosphorylated Dok1 (Ser-450) Peptide

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