

Anti-p130 Cas (Tyr-751), phospho-specific

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|--------|--------------------------|
| Cat. # | PP1581 |
| Host | Rabbit Polyclonal |
| Size | 100µl |

Background:

p130 Cas (Crk-associated substrate (CAS), breast cancer antiestrogen resistance 1 (BCAR1)) is a docking protein containing multiple protein-protein interaction domains. The amino-terminal SH3 domain may function as a molecular switch regulating CAS tyrosine phosphorylation, as it interacts with focal adhesion kinase (FAK) and the FAK-related kinase PYK2, as well as with the tyrosine phosphatases PTP-1B and PTP-PEST. The carboxy-terminal Src binding domain (SBD) contains a proline-rich motif that mediates interaction with the SH3 domains of Src-family kinases (SFKs) and a tyrosine phosphorylation site (Tyr-762 in rat or Tyr-668 in mouse p130 Cas) that can promote interaction with the SH2 domain of SFKs. The p130 Cas central substrate domain, the major region of tyrosine phosphorylation, is characterized by 15 tyrosines present in Tyr-X-X-Pro (YXXP) motifs, including Tyr-165, Tyr-249, and Tyr-410. When phosphorylated, most YXXP motifs are able to serve as docking sites for proteins with SH2 or PTB domains, including the adaptors Crk and Nck. In addition, phosphorylation of Tyr-751 (Tyr-653 in human) near the C-terminal caspase recognition site can attenuate caspase cleavage. Dephosphorylation of this site occurs during apoptosis, and may facilitate p130 Cas degradation.

References:

Nakamoto, T. et al. (1996) J Biol Chem. 271 (15):8959.
Pellicena, P. & Miller, W.T. (2001) J Biol Chem. 276 (30):28190.
Kim, D.H. et al. (2003) Biochem Biophys Res Comm. 300:141.
Shin, N.-Y. et al. (2004) J Biol Chem. 279 (37):38331.

Immunogen:

Phospho-p130 Cas (Tyr-751) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 751 in rat p130 Cas. This rat sequence is the same as Tyr-653 in human p130 Cas and Tyr-657 in mouse p130 Cas.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Applications:

Western blotting 1:2000 dilution[†]
ELISA 1:2000 dilution

End user should determine optimal dilution for their particular applications and experiments.

[†]Membrane was incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

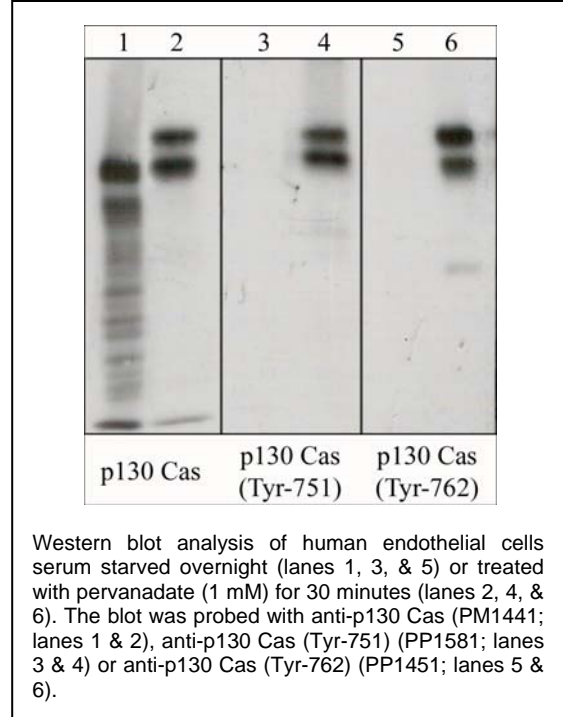
Specificity:

This antibody was cross-adsorbed to phospho-tyrosine coupled to agarose and to phospho-p130 Cas (Tyr-762) peptide before affinity purification using phospho-p130 Cas (Tyr-751) peptide (without carrier). The antibody detects a 130 kDa* protein corresponding to the molecular mass of phosphorylated p130 Cas on SDS-PAGE immunoblots of pervanadate treated human endothelial and A431 cells, but is not observed in control cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:

PM1441 p130 Cas (C-terminal) Mouse Monoclonal PP1451 p130 Cas (Tyr-762), phospho-specific Rabbit Polyclonal



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