

# p130 Cas Antibody



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<b>Applications:</b> W, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 130	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P56945	<b>Entrez-Gene Id:</b> 9564
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## Product Usage Information

### Application

Western Blotting  
Immunoprecipitation

### Dilution

1:1000  
1:100

## 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

p130 Cas Antibody recognizes endogenous levels of total p130 Cas protein.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro118 of human p130 Cas protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

p130 Cas (Crk-associated substrate) 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) (1) and the FAK-related kinase PYK2 (2), as well as the tyrosine phosphatases PTP-1B (3) and PTP-PEST (4). 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 (Tyr668 and/or Tyr670) that can promote interaction with the SH2 domain of SFKs (5). 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 Tyr165, 249, and 410. When phosphorylated, most YXXP motifs are able to serve as docking sites for proteins with SH2 or PTB domains including adaptors, C-Crk, Nck, and inositol 5'-phosphatase 2 (SHIP2) (6). The tyrosine phosphorylation of p130 Cas has been implicated as a key signaling step in integrin control of normal cellular behaviors including motility, proliferation, and survival. Aberrant Cas tyrosine phosphorylation may contribute to cell transformation by certain oncoproteins (5).

## Background References

1. Polte, T.R. and Hanks, S.K. (1997) *J Biol Chem* 272, 5501-9.
2. Astier, A. et al. (1997) *J Biol Chem* 272, 228-32.
3. Liu, F. et al. (1996) *J Biol Chem* 271, 31290-5.
4. Garton, A.J. et al. (1997) *Oncogene* 15, 877-85.
5. Ruest, P.J. et al. (2001) *Mol Cell Biol* 21, 7641-52.
6. Bouton, A.H. et al. (2001) *Oncogene* 20, 6448-58.

## 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 **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human

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