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Product Information

Anti-CIN85 (HQ-17)

Developed in Rabbit, IgG Fraction of Antiserum

Product Number **C 8116**

Product Description

Anti-CIN85 (HQ-17) is developed in rabbit using a synthetic peptide corresponding to amino acids 478-494 of human CIN85, conjugated to KLH via an N-terminal added cysteine residue, as immunogen. The immunizing sequence is conserved in human, mouse and rat. Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.

Anti-CIN85 (HQ-17) recognizes CIN85 by immunoblotting (approx 80 kDa) and immunoprecipitation. Staining of the CIN85 band in immunoblotting is specifically inhibited by the immunizing peptide.

Binding of growth factors to receptor tyrosine kinases (RTKs), promotes receptor activation, leading to autophosphorylation and phosphorylation of numerous cellular proteins. Ultimately, signaling networks that mediate proliferative and differentiating signals are formed.¹ After their activation, RTKs are rapidly removed from the cell surface in a process dependent on receptor ubiquitination and interaction with endocytic proteins.^{2,3} The protooncogene c-Cbl, and CIN85 are among the main players in this process.^{4,5}

CIN85, also known as Ruk, SETA, SH3KBP1 or Cbl-interacting protein of 85 kDa, is a 665 amino acid protein. Its function in the process of endocytosis became known after its isolation in a search for c-Cbl interacting proteins.⁵ CIN85 belongs to the CIN85/CMS family of adaptor molecules, characterized by containing three SH3 domains, a proline-rich region and a coiled-coil domain.⁶⁻⁸ The different members of the family orchestrate a network involved in downregulation and degradation of RTKs.⁶ In the case of EGF receptor turnover, its activation involves recruitment of CIN85-endophilin complexes to mediate internalization. Association of endophilins is a critical step; their translocation to the vicinity of active EGF receptors promotes membrane invagination and thus receptor invagination.⁹ Once internalized, RTKs are delivered into the endosomal compartment where receptors get sorted for either recycling back to the cell surface or are targeted to lysosomes for degradation.^{9,10}

Reagent

The antibody is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as preservative.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

A working concentration of 1:4000-1:8000 is determined by immunoblotting, using lysates of NIH3T3 cells.

2.5-5.0 µl of the antibody immunoprecipitates CIN85 from lysates from NIH3T3 cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilution by titration test.

References

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