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Rabbit Anti-NCK adaptor protein 1/2/AP Conjugated antibody

SL7377R-AP

Product Name	Anti-NCK adaptor protein 1/2/AP
Chinese Name	碱性磷酸酶（AP）标记的 NCK 衔接蛋白 1/2 抗体
Alias	Nck 1/2; NCK adaptor protein 1 + 2 GRB4; melanoma NCK protein; MGC12668; NCK; NCK adaptor protein 1; NCK adaptor protein 2; NCK tyrosine kinase; NCKalpha; NCKbeta; NCK1_HUMAN; NCK12_HUMAN; non catalytic region of tyrosine kinase; noncatalytic region of tyrosine kinase, beta; SH2/SH3 adaptor protein NCK alpha; SH2/SH3 adaptor protein NCK beta
Research Area	Tumour Cell biology Signal transduction Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,ELISA=1:500-5000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	43kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human NCK adaptor protein 1/2
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:**

The protein encoded by this gene is one of the signaling and transforming proteins containing Src homology 2 and 3 (SH2 and SH3) domains. It is located in the cytoplasm and is an adaptor protein involved in transducing signals from receptor tyrosine kinases to downstream signal recipients such as RAS. Alternatively spliced transcript variants encoding different isoforms have been found. [provided by RefSeq, Jun 2010]

Function:
NCK1 is one of the adaptor proteins which mediate specific protein-protein interactions in signaling processes. Adaptor proteins usually contain several domains like SH2 and SH3 which allow specific interactions with other specific proteins. NCK1 and NCK2 show high sequence identity (68%) and have three SH3 domains and a C-terminal SH2 domain. Both of them bind receptor tyrosine kinases such as PDGFR and other tyrosine phosphorylated proteins via their SH2 domains. Various molecules which interact with SH domains of Nck and regulate signaling process of actin cytoskeleton reorganization have been identified. Ncks are thought to have important functions in the development of mesodermal structures during embryogenesis, linked to a role in cell movement and cytoskeletal reorganization. Ncks also have a function in modulating mRNA translation at the level of initiation by interacting eukayotic initiation factor 2 (eIF2). Under stressed conditions, protein synthesis is reduced by inhibiting the activity of eIF2 through phosphorylation, transiently inhibiting recycling of eIF2 into its active form.

Subcellular Location:
Cytoplasm. Endoplasmic reticulum. Nucleus. Note=Mostly cytoplasmic, but shuttles between the cytoplasm and the nucleus. Import into the nucleus requires the interaction with SOCS7. Predominantly nuclear following genotoxic stresses, such as UV irradiation, hydroxyurea or mitomycin C treatments.

Post-translational modifications:
Phosphorylated on Ser and Tyr residues. Phosphorylated in response to activation of EGFR and FcERI. Phosphorylated by activated PDGFRB.

Similarity:
Contains 1 SH2 domain.
Contains 3 SH3 domains.

Database links:

Entrez Gene: 4690 Human

Entrez Gene: 8440 Human

Entrez Gene: 17973 Mouse

Entrez Gene: 17974 Mouse

Entrez Gene: 300955 Rat

Entrez Gene: 316369 Rat

Omim: 600508 Human

Omim: 604930 Human

SwissProt: O43639 Human

SwissProt: P16333 Human

SwissProt: Q8BQ28 Mouse

SwissProt: Q99M51 Mouse

SwissProt: B2RZ33 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.