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ProductInformation

Monoclonal Anti-Nck-2, Clone 8.8
Purified Mouse Immunoglobulin

Product Number **N 2911**

Product Description

Monoclonal Anti-Nck-2 (mouse IgG2b isotype) is derived from the 8.8 hybridoma produced by the fusion of mice myeloma.cells and splenocytes from BALB/c mice immunized with a C-terminal region of human Nck-2 protein (amino acids 115-380) fused to GST. The ascites is purified by protein A chromatography. The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Monoclonal Anti-Nck-2 recognizes human, rabbit, rat and chicken Nck-2 (approx. 43 kDa). The epitope recognized by the antibody resides within amino acids 176-274 of human Nck-2. Cross reactivity has been observed with human Nck-1.[1] The product is useful in ELISA,[1] immunoblotting,[1] immunoprecipitation[2] and immunocytochemistry applications.[2]

The Nck proteins are a family of adaptor proteins with three N-terminal SH3 domains and one C-terminal SH2 domain. The family contains two members, Nck-1 also known as Nckα, and Nck-2 also known as Nckβor Grb4. Nck proteins are ubiquitously expressed in many tissues and are involved in cellular signaling regulating cytoskeleton organization, growth, and gene expression.[1,2]

Nck-1 and -2 are both 43 kDa proteins and are 68 % identical at the protein level. The association of Nck-2 with PDGF Receptor β and EGF-Receptor is mediated only when the receptors are activated by their ligand, while the association of Nck-2 to insulin receptor substrate (IRS)-1 is independent of insulin stimulation.[1] Nck-2 can interact with kinases like the focal adhesion kinase (FAK), which is a cytoplasmic tyrosine kinase involved in the cellular control of motility. Several SH2 and SH3 domains of Nck-2 mediate this interaction. FAK/Nck-2 complexes are localized at the cell periphery in spreading cells.[2]

Monoclonal antibodies to Nck-2 are an important tool for studying the role of adaptor proteins in cell signaling processes.

Reagent

Monoclonal Anti-Nck-2 is supplied as an approximately 2 mg/ml solution in 0.01 M phosphate buffered saline pH 7.4 and 15 mM sodium azide as a 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 –20 °C. Upon initial thawing freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing to prevent denaturing the antibody. Storage in "frost-free" freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. The antibody is stable for at least 12 months when stored appropriately. Working dilutions should be discarded if not used within 12 hours.

Product Profile

A working concentration of 1-2 µg/ml is determined by immunoblotting using rat tongue extract.
Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

References

1. Tu, Y., et al., Mol. Biol. Cell, **9**, 3367-3382 (1998).
2. Goicoechea, S., et al., Int. J. Biochem. Cell Biol., **34**, 791-805 (2002).

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