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Product Information

Anti-Nup62/p62 antibody, Rat monoclonal
clone 2A11, purified from hybridoma cell culture

Catalog Number **N1163**

Product Description

Monoclonal Anti-Nup62/p62 (rat IgG1) is derived from the hybridoma 2A11 produced by the fusion of mouse myeloma cells (SP2 cells) and splenocytes from WKY/NCrj rat immunized with a recombinant fragment of human Nup62, amino acids 1-300.[1]

Monoclonal Anti-Nup62/p62 recognizes human and simian Nup62. The antibody may be used in ELISA, immunoblotting (~62 kDa),[1] and immunocytochemistry.[1]

Exchange between the cytoplasm and the nuclear compartments occurs through the nuclear pore complex (NPC), a ~125 MDa supramolecular assembly of proteins organized into an elaborate channel that spans the double membrane system of the nuclear envelope. NPC allows passage by passive diffusion of small molecules, and active transport of most molecules when bound to nuclear transport receptors.

The vertebrate NPC contains ~100 different polypeptides called nucleoporins or Nups. Nup62/p62 is a major component of the NPC and it interacts directly with several nuclear transport factors, including importin-β and NTF.[1] The N-terminal part of Nup62 is involved in nucleocytoplasmic transport while the C-terminal end contains a coiled-coil structure aiding in protein-protein interactions that may function in the anchorage of the protein to the pore complex. The Nup62 gene contains three exons and is encoded exclusively by the terminal exon. The protein is ubiquitously expressed and conserved in the eukaryote kingdom.[2-3]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~2 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards 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, or 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

Immunoblotting: a working concentration of 1-2 μg/mL is recommended using HeLa nuclear extract.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Fukuhara, T., et al., *Hybridoma*, **25**, 51-59 (2006).
2. Carmo-Fonesca, M., et al., *Eur. J. Cell Biol*., **55**, 17-30 (1991).
3. Mans, B.J., et al., *Cell Cycle*, **3**, 1612-1637 (2004).

DS,EK,KAA,PHC,MAM 12/19-1