3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Exportin 5 (N-terminal)
produced in rabbit, affinity isolated antibody

Product Number **SAB4200004**

Product Description

Anti-Exportin 5 (N-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human Exportin 5 (Gene ID: 57510) conjugated to KLH. The corresponding sequence differs by one amino acid in rat and mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Exportin 5 (N-terminal), recognizes human Exportin 5. The antibody may be used in several immunochemical techniques including immunoblotting (~135 kDa), immunoprecipitation and immunofluorescence. Detection of the Exportin 5 band by immunoblotting is specifically inhibited with the immunizing peptide.

Nucleocytoplasmic transport occurs through nuclear pore complexes (NPCs) and is mediated by transport receptors that shuttle between the nucleus and the cytoplasm. Most transport receptors are members of a conserved family known as importin β–type nuclear transport receptors or karyopherins, which include nuclear export receptors (exportins) and nuclear import receptors (importins).[1,2] Exportins and importins are regulated by the G protein Ran. Ran-GTP enhances the binding of an exportin to its cargo but stimulates the release of cargo from importins, while Ran-GDP stimulates the release of cargo from exportins but enhances the binding of importin to its cargo.[1,2] Exportin 5 (also known as XPO5, Exp5, Ran-binding protein 21) was identified as a nuclear receptor for ILF3, a double-stranded RNA binding protein (dsRBP), and for several other dsRBPs.[3] However, it was discovered that Exportin 5 can also export RNA such as viral hairpin RNAs,[4] some tRNAs,[5] and pre-micro-RNAs, which are likely to be its major endogenous cellular RNA cargos.[6]

Reagent

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

Antibody concentration: ~1.0 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 dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 1-2 μg/mL is recommended using A431 cell lysates.

Immunoprecipitation: a working antibody amount of 2.5-5 μg is recommended using A431 cell lysates.

Immunofluorescence: a working antibody concentration of 2.5- 5 μg/mL is recommended using paraformaldehyde fixed HEK-293T cells.

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

References

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4. Gwizdek, C. et al., *J. Biol*. *Chem.*, **276**, 25910-25918 (2001).
5. Bohnsack, M.T. et al., *EMBO J*., **21**, 6205-6215 (2002).
6. Bohnsack, M.T. et al., *RNA*, **10**, 181-191 (2004).