

Product Information

Monoclonal Anti-Exportin T

Clone Los1

Purified Mouse Immunoglobulin

Product Number **E 1531**

Product Description

Monoclonal Anti- Exportin T (mouse IgG1 isotype) is derived from the hybridoma Los1 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with Exportin-T. The isotype is determined using Sigma ImmunoType™ Kit (Sigma ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma ISO-2).

Monoclonal Anti- Exportin-T recognizes human, bovine, rat, and mouse Exportin-T. The antibody may be used in immunoblotting (~110 kDa), and immunocytochemistry.

Exportin-T is a RanGTP binding, importin β related protein that is composed of 963 amino acids. The protein has a predominantly nuclear localization and shuttles rapidly between the nucleus and the cytoplasm, and interacts with the nuclear pore complexes. Its function is to export its main cargo (mature tRNA) from the nucleus to the cytoplasm. The protein contains a RanGTP binding site in its N-terminal region, while the C-terminal region binds its cargo. The binding of RanGTP to Exportin-T is required for the normal steady-state nuclear localization of the protein.¹⁻⁴ Exportin-T binds via its N-terminal region also to the Nup153 and RanBP2/Nup358 proteins. These proteins are localized to the nucleoplasmic coaxial ring of the NPC (Nuclear Pore Complex) or the cytoplasmic filaments, respectively. These interactions are RanGTP dependent while the interaction with CAN/Nup214, a protein located at the cytoplasmic side of the NPC channel, is Ran independent. Upon its transport through the NPC, the export complex accumulates on RanBP2 until RanGTP is removed. The empty Exportin-T can recycle into the nucleus by interacting with the CAN protein.¹⁻⁴

Reagent

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

Antibody Concentration: Approx. 1.5 mg/mL

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 prolonged storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in frost-free freezers is also 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

By immunoblotting, a working antibody concentration of 0.5-1 μ g/mL is recommended using HeLa total cell extract.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Yoneda, Y., et al., Cell Str. Func., **24**, 425-433 (1999).
2. Ryan, K.J., and Wente, S.R., Curr. Opin. Cell Biol., **12**, 361-371 (2000).
3. Arts, G.J., et al., Curr. Biol., **12**, 305-314 (1998).
4. Kuersten, S., et al., Mol. Cell. Biol., **22**, 5708-5720 (2002).

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