Product Information

Anti-XPO4 Antibody, Mouse Monoclonal

Clone XP-12, Purified from Hybridoma Cell Culture

SAB4200417

Product Description

Anti-XPO4 (mouse IgG1 isotype) is derived from the hybridoma XP-12 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a peptide corresponding to a sequence at the C-terminus of human XPO4 (GeneID: 64328). The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-XPO4 recognizes human, monkey, bovine, dog, chicken, hamster, rat and mouse XPO4. The antibody may be used in various immunochemical techniques including immunoblotting (~ 130 kDa) and immunofluorescence. Staining of the XPO4 band in immunoblotting is specifically inhibited by the immunizing peptide.

In eukaryotic cells, the movement of macromolecules between the nucleus and cytoplasm occurs through the nuclear pore complex (NPC) - a large protein complex spanning the nuclear envelope. The nuclear transport of proteins is usually mediated by a family of transport receptors known as karyopherins. Karyopherins bind to their cargoes to form a transport complex via recognition of nuclear localization signals (NLS) for nuclear import, or nuclear export signals (NES) for export.[1] A member of this family, XPO4 (exportin 4) appears to be conserved amongst higher eukaryotes, but lacks obvious orthologues in yeast. It mediates nuclear export of eIF-5A (eukaryotic translation initiation factor 5A).[2] Furthermore, XPO4 has also been shown to transport Sox proteins as well as to regulate Smad signaling.[3,4] Having these wide variety of functions suggested XPO4 as a candidate tumor- suppressor gene. Indeed, its involvement in the progression of human hepatocellular carcinomas (HCC) has been demonstrated, implicating this protein as a potential target for treatment of HCC.[5]

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: ~ 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 at −20 °C 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 1.0-2.0 µg/mL is recommended using extracts of HeLa cells.

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

References

1. Sorokin, A.V., et al., *Biochemistry,* **72**: 1439-1457 (2007).
2. Lipowsky, G., et al., *EMBO J.,* **19L:** 4362-4371 (2000).
3. Kurisaki, A., et al., *Mol. Cell Biol*., **26**: 1318-1332 (2006).
4. Gontan, C., *J. Cell Biol.*, **185**: 27-34 (2009).
5. Liang, X.T., et al., *J. Gastroenterol. Hepatol.,* **26**: 544-540 (2001).

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