

## Product Information

### Anti-TNPO2 (C-terminal)

produced in rabbit, affinity isolated antibody

Product Number **SAB4200031**

#### Product Description

Anti-TNPO2 (C-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human TNPO2 (Gene ID: 30000) conjugated to KLH. The corresponding sequence differs by a single amino acid in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-TNPO2 (C-terminal) recognizes human TNPO2 isoform b. The antibody may be used in several immunochemical techniques including immunoblotting (~95 kDa), immunoprecipitation, and immunofluorescence. Detection of the TNPO2 band by immunoblotting is specifically inhibited with the immunizing peptide.

Nucleocytoplasmic transport of proteins and RNAs occurs through nuclear pore complexes (NPCs) and is mediated by soluble carriers known as karyopherins (Kaps), transportins, importins, or exportins that shuttle between the nucleus and the cytoplasm.<sup>1,2</sup> TNPO1 and TNPO2 are two members of the karyopherin family of transport receptors that were implicated in a novel nuclear protein import pathway. TNPO1 and TNPO2 specifically bind to M9-containing proteins such as hnRNPA1<sup>3</sup> as well as the HNS region of HuR, but not to the classical NLS-containing proteins.<sup>4</sup>

TNPO2 (also known as TRN2, Transportin-2, Karyopherin  $\beta$ -2b, and Importin 3) exists in two isoforms (Trn2a and Trn2b) both highly similar to the TNPO1. They were reported to interact with a similar set of RNA-binding proteins in a Ran-GTP sensitive manner.<sup>5</sup>

#### 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

Store at  $-20^{\circ}\text{C}$ . For continuous use, the product may be stored at  $2-8^{\circ}\text{C}$  for up to one month. For extended storage, freeze in working aliquots at  $-20^{\circ}\text{C}$ . 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  $\mu\text{g}/\text{mL}$  is recommended using lysates of HEK-293T cells overexpressing human TNPO2.

**Immunoprecipitation:** a working antibody amount of 5-10  $\mu\text{g}$  is recommended using lysates of HEK-293T cells overexpressing human TNPO2.

**Immunofluorescence:** a working antibody concentration of 2-5  $\mu\text{g}/\text{mL}$  is recommended using paraformaldehyde fixed HEK-293T cells overexpressing human TNPO2.

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

#### References

1. Gorlich, D., and Kutay, U., *Annu. Rev. Cell Dev. Biol.*, **15**, 607-660 (1999).
2. Cook, A. et al., *Annu. Rev. Biochem.*, **76**, 647-671 (2007).
3. Pollard, V.W. et al., *Cell*, **86**, 985-944 (1996).
4. Guttinger, S. et al., *Proc. Natl. Acad. Sci. USA*, **101**, 2918-2923 (2004).
5. Rebane, A. et al., *RNA*, **10**, 590-599 (2004).

VS,SG,TD,KAA,PHC,MAM 05/19-1