

## Product Information

### Anti-RANBP1 (N-terminal)

produced in rabbit, affinity isolated antibody

Product Number **SAB4200070**

### Product Description

Anti-RANBP1 (N-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human RANBP1 (Gene ID: 5902) conjugated to KLH. The corresponding sequence differs by two and three amino acids in mouse and rat, respectively. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-RANBP1 (N-terminal) recognizes human RANBP1. The antibody may be used in several immunochemical techniques including immunoblotting (~23 kDa) and immunofluorescence. Detection of the RANBP1 band by immunoblotting is specifically inhibited with the immunizing peptide.

RanBP1 (also known as RANG, Ran-specific GTPase-activating protein, Ran-binding protein 1), a 23-kDa protein, is ubiquitously expressed and highly conserved across species. RanBP1 is a guanine nucleotide dissociation inhibitor for GTP-Ran, which is known to play crucial roles in the regulation of transport through the nuclear pore, and in assembly and function of the mitotic spindle.<sup>1</sup>

RanBP1 acts as a cofactor for RanGAP1, a Ran GTPase-activating protein, thus increasing the *in vitro* rate of Ran's GAP-mediated hydrolysis by an order of magnitude. RanBP1 contains a single conserved Ran-binding sequence and an amino-terminal nuclear export sequence. It has been shown that RanBP1 overexpression induces spindle pole fragmentation and impairs mitotic exit<sup>2</sup> and that loss of RanBP1 activity contributes to the generation of aneuploidy in a microtubule-dependent manner.<sup>3</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 °C. For continuous use, the product may be at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at -20 °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 2-4 µg/mL is recommended using HeLa cell lysates.

Immunofluorescence: a working antibody concentration of 2-4 µg/mL is recommended using paraformaldehyde fixed HeLa cells.

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

### References

1. Kalab, P., and Heald, R., *J. Cell Sci.*, **121**, 1577-1586 (2008).
2. Di Fiore, B. et al., *J. Cell Sci.*, **116**, 3399-3411 (2003).
3. Tedeschi, A. et al., *J. Cell Sci.*, **120**, 3748-3761 (2007).

VS,SG,TD,KAA,PHC,MAM 06/19-1