

## Product Information

### Monoclonal Anti-GBP1, Clone GBP 1B1

produced in rat, purified immunoglobulin

Catalog Number **SAB4200056**

#### Product Description

Monoclonal Anti-GBP1 (rat IgG1 isotype) is derived from the hybridoma GBP 1B1 produced by the fusion of mouse myeloma cells and splenocytes from rat immunized with a human GBP1 (GenelD: 2633) fusion protein. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-GBP1 recognizes human GBP1. The antibody may be used in various immunochemical techniques including immunoblotting (~67 kDa), immunofluorescence and immunohistochemistry.<sup>1-6</sup>

GBP1 (guanylate binding protein 1) is a member of the large GTPase protein family. GBP1 displays a potent anti-angiogenic activity in endothelial cells and is involved in protective immunity against microbial and viral pathogens. GBP1 expression in endothelial cells is selectively induced by IFN- $\alpha$ /IFN- $\gamma$ , IL-1 $\alpha$ /IL-1- $\beta$  and TNF- $\alpha$ . GBP1 binds specifically to guanine nucleotides such as GMP, GDP and GTP. It hydrolyzes GTP with a high intrinsic turnover yielding GMP and inorganic phosphate. GBP1 is composed of a large globular  $\alpha/\beta$ -domain harboring the GTPase activity and an elongated  $\alpha$ -helical C-terminal domain. It carries an isoprenylation motif at its C-terminal end, which is involved in membrane association.<sup>1-6</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

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

Store at -20 °C. 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 antibody concentration of 0.2-0.5  $\mu$ g/mL is recommended using a whole extract of human HS68 cells.

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

#### References

1. Guenzi, E., et al., *EMBO J.*, **20**, 5568-5577 (2001).
2. Lubeseder-Martellato, C., et al., *Am. J. Pathol.*, **161**, 1749-1759 (2002).
3. Guenzi, E., et al., *EMBO J.*, **22**, 3772-3782 (2003).
4. Naschberger, E., et al., *Biochem. J.*, **379**, 409-420 (2004).
5. Naschberger, E., *Adv. Enzyme Regul.*, **45**, 215-227 (2005).
6. Naschberger, E., *Am. J. Pathol.*, **169**, 1088-1099 (2006).

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