

## Product Information

# Anti-ELMO1 Antibody, Mouse Monoclonal

Clone ELMO1-6, Purified from Hybridoma Cell Culture

**SAB4200443**

## Product Description

Anti-ELMO1 (mouse IgG1 isotype) is derived from the hybridoma ELMO1-6 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence near the C-terminus of human ELMO1 (GeneID: 9844), conjugated to KLH. The corresponding sequence is identical in mouse, rat, bovine, monkey and dog and differs by 4 amino acids in ELMO2. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-ELMO1 recognizes human and mouse ELMO1. The antibody can be used in several immunochemical techniques including immunoblotting (~ 75 kDa) and immunoprecipitation. Detection of the ELMO1 band by immunoblotting is specifically inhibited by the immunizing peptide.

ELMO1 (engulfment and cell motility 1) is a member of the evolutionary conserved family of ELMO proteins that regulate actin cytoskeleton reorganization during engulfment and cell migration.<sup>1,2</sup> ELMO1 and Dock180 function together as a guanine exchange factor (GEF) for the small GTPase Rac, leading to its activation and cytoskeleton rearrangement.<sup>3</sup> ELMO1 directly binds to Dock180 via a C-terminal PH domain, and to the active form of the small GTPase RhoG, via the N-terminal domain, targeting the ELMO/Dock180 complex to the membrane.<sup>4,5</sup> ELMO1 also interacts with BAI1, an engulfment receptor for apoptotic cells upstream of the ELMO1/Dock180/Rac module.<sup>6</sup> High expression levels of ELMO1 and Dock180 are linked to the invasive phenotype of glioma cells.<sup>7</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

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 1-2 µg/mL is recommended using whole extracts of human Raji or mouse A20 cells.

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

## References

1. Gumienny, T.L, et al., *Cell*, **107**: 27-41 (2001).
2. DeBakker, C.D, et al., *Curr. Biol.*, **14**: 2208-2216 (2004).
3. Brugnera, E., et al., *Nat. Cell Biol.*, **4**: 574-582 (2002).
4. Komander, D., et al., *Mol. Biol. Cell*, **19**: 4837-4851 (2008).
5. Grimsley, C.M., et al., *J. Biol. Chem.*, **281**: 5928- 5937 (2006).
6. Park, D., et al., *Nature*, **450**: 430-434 (2008).
7. Jarzynka, M.J., et al., *Cancer Res.*, **67**: 7203-7211 (2007).

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