

Product Information

Anti-ELMO (C-terminal)

produced in rabbit, IgG fraction of antiserum

Product Number **E1908**

Product Description

Anti-ELMO (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the C-terminal 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 IgG fraction of antiserum is purified from whole antiserum using protein A immobilized on agarose.

Anti-ELMO (C-terminal) recognizes human, mouse, and rat ELMO1 (not tested in other species). The antibody can be used in several 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 evolutionarily conserved family of ELMO proteins that regulate actin cytoskeleton reorganization during engulfment and cell migration.^{1,2} ELMO1 and Dock180 function together as a guanine exchange factor (GEF) for the small GTPase Rac, leading to its activation and cytoskeleton rearrangement.³ 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.^{4,5} ELMO1 also interacts with BAI1, an engulfment receptor for apoptotic cells upstream of the ELMO1/Dock180/Rac module.⁶ High expression levels of ELMO1 and Dock180 are linked to the invasive phenotype of glioma cells.⁷

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

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 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 dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody dilution of 1:2,000–1:3,000 is recommended using a whole extract of human Jurkat cells.

Immunoblotting: a working antibody dilution of 1:1,000–1:2,000 is recommended using a whole extract of rat brain.

Immunoprecipitation: a working antibody amount of 1–2 µL is recommended using a whole extract of mouse A-20 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. 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**, 4837-51 (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).

VS,ST,KAA,TD,PHC,MAM 02/19-1