3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-MO25 (C-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **M7195**

Product Description

Anti-MO25 (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 323-341 located near the C-terminus of human MO25 (Gene ID: 51719), conjugated to KLH. This sequence is identical in chicken, dog, and bovine MO25 and highly conserved in rat and mouse MO25 (2 amino acid substitutions). The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-MO25 (C-terminal) specifically recognizes human MO25 by immunoblotting (~40 kDa). Staining of the MO25 band in immunoblotting is specifically inhibited by the immunizing peptide.

LKB1 has been identified as a gene mutated in the inherited Peutz-Jeghers syndrome (PJS), associated with an increased risk for several types of benign and malignant tumours.[1] Over-expression of LKB1 in various cell lines induces a G1 cell-cycle arrest. Mice lacking one allele of the LKB1 gene develop benign polyps similar to those found in PJS in humans. In addition, LKB1 also plays an important role in regulating cell polarity in various species, a mechanism that may contribute to tumour formation in PJS patients. LKB1 forms a complex *in vivo* with STRAD (STE20-related adaptor), an inactive pseudokinase, and MO25 (mouse protein 25, also termed calcium binding protein 39, CAB39 and CGI-66).[3-4] MO25 is an Armadillo repeat-domain scaffolding protein.[3-5] The binding of LKB1 to STRAD-MO25 activates LKB1 and also anchors it in the cell cytosol. LKB1 is a key regulator of AMP-activated protein kinase (AMPK), which is a master regulator of cellular energy.[6] In mice lacking LKB1 either in skeletal muscle or liver, AMPK is not activated in response to a variety of stimuli. The active LKB1-STRAD-MO25 complex phosphorylates AMPK at the T-loop Thr^{172} residue, leading to activation of AMPK.

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: ~2 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

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 concentration of 0.5-1 µg/mL is recommended using cell lysates of HEK-293T cells expressing human MO25 and using PC12 cell lysate.

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

References

1. Jenne, D.E., et al., *Nat. Genet.*, **18**, 38-43 (1998).
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3. Alessi, D., et al., *Ann. Rev. Biochem.*, **75**, 137-163 (2006).
4. Boudeau, J., et al., *EMBO J.*, **22**, 5102-5114 (2003).
5. Boudeau, J., et al., *J. Cell Sci.*, **117**, 6365-6375 (2004).
6. Woods, A., et al., *Curr. Biol.*, **13**, 2004-2008 (2003).

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