3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-AMSH-LP/STAMBPL1
produced in rabbit, affinity isolated antibody

Product Number **SAB4200145**

Product Description

Anti-AMSH-LP/STAMBPL1 is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human AMSH-LP/STAMBPL1 (GeneID: 57559), conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-AMSH-LP/STAMBPL1 recognizes human AMSH-LP/STAMBPL1. The antibody may be used in several immunochemical techniques including immunoblotting (~50 kDa) and immunofluorescence. Detection of the AMSH/STAMBP band by immunoblotting is specifically inhibited by the immunizing peptide.

AMSH-LP (AMSH-like protein), also known as STAMBPL1, is a close homolog of AMSH (Associated Molecule with the SH3 domain of STAM). AMSH and AMSH-LP belong to the JAMM domain metalloprotease family of Zn^{2+}-dependent deubiquitinating enzymes (DUBs). Both proteins are involved in the deubiquitination of endosomal proteins and specifically cleave K-63-linked polyubiquitin chains.

Similar to AMSH, AMSH-LP contains a nuclear localization signal (NLS), an Mpr/Pad1/N-terminal (MPN) domain, and a Jab1/MPN domain metalloenzyme (JAMM) motif. AMSH-LP, like AMSH, interacts with clathrin heavy chain and this interaction is essential for its endosomal localization. However, AMSH-LP, unlike AMSH, fails to bind to the SH3 domain of STAM, suggesting that they are not functionally redundant. AMSH-LP positively regulates TGF-β signaling through interaction with inhibitory I-SMADs.[1-5]

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, 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 1-2 μg/mL is recommended using whole extracts of human PMC2 cells.

Immunofluorescence: a working concentration of 2-5 μg/mL is recommended using human 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. Kikuchi, K. et al., *Biochem. Biophys. Res. Commun.*, **306**, 637-643 (2003).
2. Ibarrola, N. et al., *BMC Cell Biol.*, **5**:2 (2004).
3. Nakamura, M. et al., *Genes Cells*, **11**, 593-606 (2006).
4. Sato, Y. et al., *Nature*, **455**, 358-362 (2008).
5. Sacco, J.J. et al., *IUBMB Life*, **62**, 140-157 (2010).

VS,BR,CS,ST,PHC,MAM 06/19-1