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Product Information

Monoclonal Anti-AMSH/STAMBP, clone AMSH-10
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200359**

Product Description

Monoclonal Anti-AMSH/STAMBP (mouse IgG1 isotype) is derived from the hybridoma AMSH-10 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to the N-terminal region of human STAMBP (GeneID: 10617), conjugated to KLH. The corresponding sequence is identical in canine and bovine, and differs by a single amino acid in mouse and by 2 amino acids in rat STAMBP. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

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

AMSH (Associated Molecule with the SH3 domain of STAM), also known as STAM binding protein (STAMBP) belongs to the JAMM domain metalloprotease family of Zn^{2+}-dependent deubiquitinating enzymes (DUBs). AMSH is involved in the deubiquitination of the endosomal cargo preceding lysosomal degradation. AMSH specifically cleaves K^{63}-linked polyubiquitin chains and is implicated in the endocytic sorting of several receptors including G protein-coupled receptors and receptor tyrosine kinases. AMSH is also implicated in the down-regulation of epidermal growth factor. AMSH is composed of multiple protein-protein interaction domains. It contains a nuclear localization signal (NLS), a microtubule-interacting and transport (MIT) domain, a clathrin-binding domain and a STAM interacting motif. AMSH interacts directly with clathrin. Through its MIT domain it interacts with several charged multivesicular body proteins, also known as chromatin-modifying proteins (CHMPs), some of which are components of the ESCRT-III complex. The interaction with clathrin is essential for AMSH endosomal localization.[1-5]

Reagent

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

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

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 cell extracts of HEK-293T cells over-expressing AMSH/ STAMBP.

Immunoprecipitation: a working amount of 5-10 µg is recommended using lysates of human HEK-293T cells.

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

References

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3. Clague, M.J., and Urbe, S., *Trends Cell Biol.*, **16**, 551-559 (2006).
4. Sierra, M.I., et al., *J. Biol. Chem.*, **285**, 13990-4004 (2010).
5. Nakamura, M., et al., *Genes Cells*, **11**, 593-606 (2006).

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