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Product Information

Anti-Leupaxin (N-terminal)
produced in rabbit, affinity isolated antibody

Product Number **SAB4200010**

Product Description

Anti-Leupaxin (N-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the N-terminal of human leupaxin (GeneID 9404), conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Leupaxin (N-terminal) specifically recognizes human leupaxin. The antibody can be used in several immunochemical techniques including immunoblotting (~43 kDa). Detection of the leupaxin band by immunoblotting is specifically inhibited by the leupaxin immunizing peptide.

Leupaxin is a LIM domain phosphotyrosine protein preferentially expressed in lymphoid tissues and hematopoietic cells, and shares homology with the focal adhesion protein paxillin.[1] Leupaxin contains two types of protein interaction domains, LIM and LD motifs that share homology with paxillin. LIM domains have been shown to mediate localization to focal contacts and LD motifs have been implicated in focal adhesion kinase (FAK) and vinculin binding, resulting in the localization of FAK to focal adhesions. The C-terminal LIM domains in leupaxin share 70% amino acid identity with paxillin. The N-terminal region of leupaxin contains three short stretches of ~13 amino acids that share 70–90% similarity with paxillin LD motifs. Leupaxin is expressed in cell types that lack FAK, such as human macrophages. Leupaxin has been shown to associate with a second FAK family member, PYK2.[1] Leupaxin and PYK2 are both preferentially expressed in leukocytes where they regulate cell type-specific signaling complex. Leupaxin is also a substrate for a tyrosine kinase in lymphoid cells and thus may function in and be regulated by tyrosine kinase activity. It can form a complex with PYK2 and PTP-PEST in several cell types including monocytes and osteoclasts and in prostate cancer cells.[2-4] In osteoclasts, leupaxin has been suggested to be a critical nucleating component of the osteoclast podosomal signaling complex in the adhesion zone.[4] It is expressed in prostate cancer and is thought to play a role in adhesion and invasion of prostate carcinoma cells.[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, the product may be stored 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 dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 μg/mL is recommended using extracts of Raji 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. Lipsky, B.P. et al., *J. Biol. Chem.*, **273**, 11709-11713 (1998).
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3. Sahu, S.N. et al., *Am. J. Physiol. Cell Physiol.*, **292**, C2288-C2296 (2007).
4. Gupta, A., *J. Bone MIner. Res.*, **18**, 669-685 (2003).
5. Kaulfuss, S. et al., *Mol. Endocrinol.*, **22**, 1606-1621 (2008).

VS,ER,TD,KAA,PHC,MAM 04/19-1