

Product Information

ANTI-LIN-7 (MALS, VELIS)

Developed in Rabbit
IgG Fraction of Antiserum

Product Number **L 1538**

Product Description

Anti-LIN-7 (MALS, Velis) is developed in rabbits using a synthetic peptide corresponding to amino acids 191-205 of human LIN-7 (MALS1), conjugated to maleimide activated keyhole limpet hemocyanin (KLH) via a N-terminal added cysteine residue. The antibody is affinity purified on the immunizing peptide immobilized on agarose.

Anti LIN-7 (MALS, Velis) reacts specifically with mammalian LIN-7 (MALS, Velis) by immunoblotting. Staining of LIN-7 in immunoblotting is specifically inhibited by the LIN-7 immunizing peptide.

The establishment of cell polarity is essential for specific signaling to the basolateral sites of epithelial cells, and for other functions where cell asymmetry is required.¹ *egans* LET-23 protein, the homologue of mammalian EGF Receptor, is preferably localized to the basolateral membrane of vulval precursor epithelial cells.² Its distribution is controlled through the LIN-2/LIN-7/LIN-10 complex. LIN-7, LIN-2, and LIN-10 contain PDZ domains, which are known to mediate protein-protein interactions with C-terminal tails of transmembrane proteins, as well as with other PDZ domains.³ While LIN-7 binds directly to LET-23 through its single PDZ domain, the whole LIN-2/LIN-7/LIN-10 complex is required for basolateral localization of the receptor. Apparently, basolateral targeting in mammalian epithelial cells is dependent on protein-protein interactions with mammalian Lin-7 (mLIN-7).

Homologues of *C. elegans* LIN-7 proteins have been identified in higher organisms, and named MALS/Veli/mLIN-7. MALS-1, -2, and -3 are mammalian homologues of LIN-7. MALS-1 and MALS-2 appear to be brain-specific, whereas MALS-3 is expressed in peripheral tissues as well.⁴⁻⁶ At the subcellular level, MALS proteins are found in both dendritic and axonal locations, suggesting that they may regulate processes at both pre- and postsynaptic sites.⁷

In both epithelial and neuronal junctions, b-catenin mediates the organization of junctions through directed interaction with LIN-7.⁸ Antibodies specific for LIN-7 are a useful tool for following the localization and protein interactions of LIN-7.

Reagent

The product is supplied as an approximately 0.8-1.2 mg/ml solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is also 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

At least 2.5 µg/ml of the antibody detects mammalian LIN-7 by immunoblotting using total rat brain extract.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

References

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6. Kamberov, E., et al., J. Biol. Chem., **15**, 11425 (2000).
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