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ProductInformation

Anti-Supervillin
Produced in Rabbit, Affinity Isolated Antibody

Product Number **S 8695**

Product Description

Anti-Supervillin is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acid residues 900-918 of human supervillin with C-terminal added cysteine, conjugated to KLH. The corresponding sequence differs by two amino acids in mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Supervillin recognizes human and mouse supervillin. Applications include immunoblotting (~250 kDa) and immunofluorescence. Detection of the supervillin bands by immunoblotting is specifically inhibited with the immunizing peptide.

Supervillin is an F-actin-binding protein originally isolated from bovine neutrophils.[1, 2] Supervillin has two isoforms of reported 205/250 kDa. The longer isoform named archvillin is muscle specific.[3] Supervillin is a tightly bound peripheral membrane protein that is concentrated at sites of epithelial cell-cell adhesion. It contributes to cell-cell adhesion, motility regulation, and information transfer between cell compartments.[1, 4, 5] The COOH-terminus of supervillin is homologous to villin/gelsolin but is not responsible for the tight binding to the actin cytoskeleton *in vivo*. The NH_2-terminus contains functional nuclear localization sequences and F-actin and myosin II binding domains.[5, 6] It has been suggested that supervillin may mediate actin and myosin II filament organization at cholesterol-rich membrane domains.[6] Supervillin has been identified as a transcriptional activator of the androgen receptor.[7] Supervillin is found in many cells of several species, but is most abundant in muscle, bone marrow, thyroid gland, and salivary gland.[1] Increased levels of supervillin are found in many carcinoma cell lines, including HeLa S3 cervical carcinoma, SW480 adenocarcinoma, and A549 lung carcinoma cells.[5]

Reagent

The antibody is 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

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 extended storage, freeze in working aliquots. 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 dilutions should be discarded if not used within 12 hours.

Product Profile

By immunoblotting, a working antibody concentration of 5-10 µg/mL is recommended using whole extracts of human HeLa cells.

By immunoblotting, a working antibody concentration of 2.5-5 µg/mL is recommended using whole extracts of differentiated mouse C2 cells.

By indirect immunofluorescence, a working antibody concentration of 10-20 µg/mL is recommended using human HeLa cells.

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

References

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5. Wulfkuhle, J.D., et al., J. Cell Sci., **112**, 2125-2136 (1999).
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