

Product Information

Anti-Annexin VII antibody, Mouse monoclonal
clone 203-217/6, purified from hybridoma cell culture

Product Number **A4475**

Product Description

Anti-Annexin VII antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the 203-217/6 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a recombinant mouse Annexin VII.¹ The isotype is determined by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Anti-Annexin VII antibody, Mouse monoclonal can be used in immunoblotting (47 kDa and/or 51 kDa depending on the tissue/cell,¹⁻⁴ and possibly also a degradation product of approx. 30 kDa²). The antibody can also be used in immunocytochemistry (methanol^{1,3,4} or 1% paraformaldehyde/0.1% glutaraldehyde¹) and in immunohistochemistry.^{1,2,4} It reacts with human, bovine, rabbit, dog, rat, mouse, and chicken.

Annexins are a family of structurally related Ca²⁺ and membrane binding proteins, which are characterized by a bipartite structure with a conserved C-terminal core domain and a unique N-terminal domain that varies in length and amino acid composition. The C-terminal domain binds Ca²⁺ and phospholipid while the N-terminal domain confers functional diversity. Annexins are involved in inhibition of phospholipase A2, in blood coagulation, aggregation of chromaffin granules, endo- and exocytosis, and in modulation of ion channel activity.⁴

Annexin VII (also known as synexin) is expressed in a wide variety of cells and tissues. It is localized in the nucleus and cytosol and found in close association with membranous structures. In human and mouse, Annexin VII is encoded by a single gene with alternatively spliced cassette exons. As a consequence, two isoforms of molecular mass of 47 kDa and 51 kDa are expressed, which differ in their N-terminal region and in their tissue-specific expression pattern. While the 47 kDa isoform is present in all tissues, the 51 kDa

isoform is specifically expressed in skeletal muscle heart and brain. Proliferating myogenic cells express the 47 kDa isoform, while upon differentiation and fusion into myotubes the 51 kDa isoform appears.³ Antibodies reacting specifically with Annexin VII serve as an essential tool for the detection of this molecule in various cells.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide.

Antibody concentration: 1.5-2 mg/ml

Precautions and Disclaimer

This product is 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

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, 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 minimum working antibody concentration of 0.5-1 µg/ml is recommended using a whole extract of A9 mouse connective tissue cells.

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

References

1. Selbert, S., et al., J. Cell Sci., **108**, 85-95 (1995).
2. Selbert, S., et al., Exp. Cell Res., **222**, 199-208 (1996).
3. Clemen, C.S., et al., J. Muscle Res. Cell Motil., **20**, 669-679 (1999).
4. Clemen, C.S., et al., Neuro. Report, **12**, 1139-1144 (2001)

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