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Product Information

ANTI-HUMAN SPECTRIN

Delipidized Whole Antiserum

Product Number **S 1515**

Product Description

Anti-Human Spectrin is developed in rabbit using SDS-PAGE purified spectrin (α and β) from freshly prepared human erythrocyte ghosts as the immunogen. The antiserum has been treated to remove lipoproteins.

Spectrin is the major cytoskeletal component in erythrocytes. It is composed of two types of polypeptides known as α and β with molecular weights of 240 and 220 kDa, respectively. The α - and β -chains form heterotetramers which are linked end-to-end via oligomeric actin and band 4.1 protein. This linkage forms an elaborate submembranal network. The spectrin web is further attached to the erythrocyte membrane via another protein known as ankyrin. It should also be noted that spectrin binds calmodulin. In recent years a large and diverse number of spectrin-like molecules have been found in non-erthyroid cells. In most cases the different spectrin related proteins contain the common α -chain and a tissue specific β -chain. These spectrin-like molecules are known by different names, such as fodrin, CBP I, calspectin, and TW 260/240.

Identity and purity of the antibody is established by immunoelectrophoresis (IEP). Electrophoresis of the antibody preparation followed by diffusion versus anti-rabbit IgG results in a single arc of precipitation in the γ region and against anti-rabbit whole serum multiple arcs of precipitation are observed.

Reagents

Rabbit Anti-Human Spectrin is supplied as a liquid containing 0.1% sodium azide as preservative.

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 hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

Antiserum specifically stains the α - and β -chains of human spectrin using an immunoblot technique.

The antiserum may be used for localization of spectrin and spectrin-like molecules in studies of the membrane skeleton obtained from a variety of avian and mammalian cells and tissues. Anti-Human Spectrin is useful for testing the cross-reactivity or cross-linkage of microtubule associated proteins, filamin, F-actin, ankyrin, and calmodulin with human spectrin. The product can also be used to study spectrin deficiency in hereditary spherocytosis.

In order to obtain best results, it is recommended that each individual user determine their optimum working dilution by titration assay.

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