Anti-Alpha II Spectrin Antibody

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Catalog#: 98-A2SM **Size:** 100 µl
Isotype: IgG1 **Clone:** 3D7

Cite this Antibody: PhosphoSolutions Cat# 98-A2SM, RRID:AB_2492030

Host	Applications	Species Tested	Species Assumed*	Molecular Weight
Mouse	WB 1:3000 ICC 1:500-1:2000 IHC 1:500-1:2000	B, H, M, R		~240 kDa

Product Description: Protein G purified mouse monoclonal antibody.

Biological Significance: The spectrin family of cytoskeletal proteins is comprised of 2 alpha genes (α1 and α2) and five beta genes (β1-β5). Spectrins have been shown to function as scaffolding proteins in mechanical support of the plasma membrane as well as bind other membrane proteins and lipids (Bennett and Baines 2001). Defects in spectrin genes have been linked to some forms of hereditary spherocytosis, a type of auto-hemolytic anemia which is characterized by spherical red blood cells that are more prone to lysis (Eber and Lux 2004).

Antigen: Recombinant construct containing the seventh, eighth and ninth repeats of human alpha II spectrin expressed in and purified from *E. Coli*.

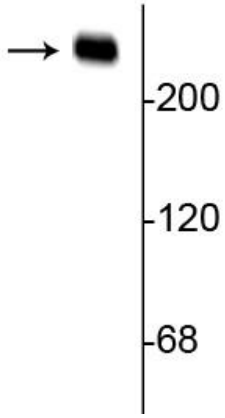
Antibody Specificity: Specific for endogenous levels of the ~240 kDa alpha II spectrin protein.

Purification Method: Protein G purified culture supernatant.

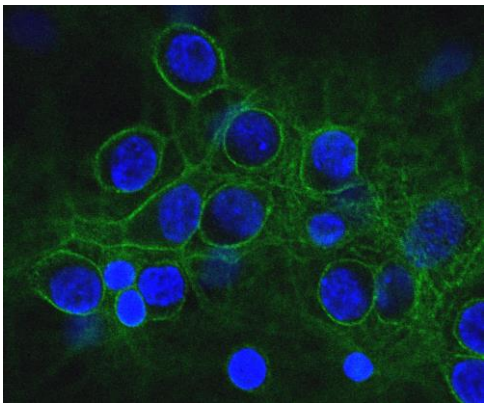
Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl PBS + 50% glycerol + 5 mM sodium azide.

Storage and Stability: Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~240 kDa alpha II spectrin protein.



Immunofluorescence of cultured rat neurons and glia showing axonal and dendritic staining of alpha II spectrin (green) revealing the submembraneous cytoskeleton and DNA (blue).

Application Key: **WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation
Species Reactivity Key: **All**-All Species **A**-Avian **Amp**-Amphibian **Ar**-*Arabidopsis* **B**-Bovine **C**-Canine **Ch**-Chicken **D**-*Drosophilia* **GP**-Guinea Pig **H**-Human **Ha**-Hamster **M**-Mouse **NHP**- Non-human primate **P**-Pig **R**-Rat **S**-Sheep **X**-*Xenopus* **Z**-Zebrafish
*Species assumed based on 100% homology with sequence used as antigen **For Research Use Only**

General References:

Bennett V & Baines AJ.(2001) Spectrin and ankyrin-based pathways: metazoan inventions for integrating cells into tissues. Physiol Rev. 81:1353-92.

Eber S & Lux SE. (2004) Hereditary spherocytosis--defects in proteins that connect the membrane skeleton to the lipid bilayer. Semin Hematol 41:118-41.