

# Anti- $\alpha$ II-Spectrin , cleavage-specific Antibody

Catalog # AN1966

## Product Information

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Application	WB
Primary Accession	<a href="#">Q13813</a>
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	284539

## Additional Information

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Gene ID	6709
Other Names	Alpha-II spectrin, Fodrin alpha chain, Spectrin, non-erythroid alpha subunit, SPTAN1, NEAS, SPTA2
Dilution	WB~~1:1000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti- $\alpha$ II-Spectrin , cleavage-specific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

## Background

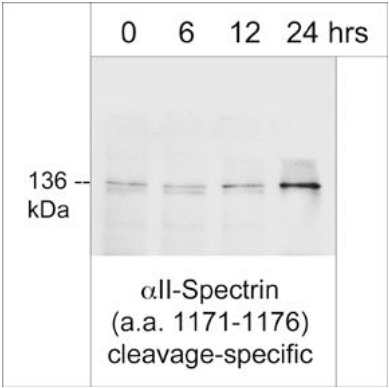
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Spectrins are central components of the cytoskeleton that form a scaffold below the plasma membrane. Spectrins contain two subunits,  $\alpha$  and  $\beta$ , which intertwine to form heterodimers that can self associate into elongated tetramers.  $\alpha$ -spectrin I and  $\beta$ -spectrin I form heterodimers in red blood cells, while nonerythroid mammalian cells contain heterodimers of  $\alpha$ -spectrin I and II with  $\beta$ -spectrin I to V. The structure of spectrins includes a succession of triple-helical repeats along with various domains, such as SH3 domain, EF hands, PH domains, and binding domains for ankyrin, actin, band 4.1, and calmodulin.  $\alpha$ -spectrin II is a widely expressed non-erythroid spectrin that contains an SH3 domain, a calmodulin binding site, and two cleavage sites, one at Tyr-1176 for calpains and one at Asp-1185 for caspase-3.  $\alpha$ -spectrin II and  $\beta$ -spectrin II, like many other spectrins, can form heterodimers that can self associate into tetramers, as well as interact with Band 4.1, F-actin, and other proteins near the plasma membrane.

## Images

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Western blot analysis of adult mouse diaphragm treated with thapsigargin for 0, 6, 12, or 24 hours to induce cleavage of  $\alpha$ II-spectrin from 250 kDa to 136 kDa. The blot was probed with rabbit polyclonal  $\alpha$ II-spectrin (a.a.



1171-1176) cleavage-specific antibody at a dilution of 1:1,000 (Image provided by Dr. Leigh Ann Callahan, Department of Internal Medicine, University of Kentucky.)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.