

Anti-alpha II Spectrin Antibody [SPTAN1/3505] (A277810)

Specifications:

Name:	Anti-alpha II Spectrin Antibody [SPTAN1/3505]
Description:	Mouse monoclonal [SPTAN1/3505] antibody to alpha II Spectrin.
Specificity:	Spectrin, an actin binding protein that is a major component of the cytoskeletal superstructure of the erythrocyte plasma membrane, is essential in determining the properties of the membrane including its shape and deformability. Spectrins function as membrane organizers and stabilizers, composed of nonhomologous $\hat{1}\pm$ and $\hat{1}^2$ chains, which aggregate side-to-side in an antiparallel fashion to form dimers, tetramers, and higher polymers. Spectrin $\hat{1}\pm$ I and spectrin $\hat{1}^2$ I are present in erythrocytes, whereas spectrin $\hat{1}\pm$ II (also designated fodrin $\hat{1}\pm$) and spectrin $\hat{1}^2$ II (also designated fodrin $\hat{1}^2$) are present in other somatic cells. The spectrin tetramers in erythrocytes act as barriers to lateral diffusion, but spectrin dimers seem to lack this function. Activation of calpain results in the breakdown of spectrin $\hat{1}\pm$ II, a neuronal cytoskeleton protein.
Applications:	IHC-P
Recommended Dilutions:	IHC-P: 1-2 $\mu\text{g/ml}$
Reactivity:	Human
Immunogen:	Recombinant fragment, around amino acids 2,351-2,475, of human alpha II Spectrin. The exact sequence is proprietary.
Host:	Mouse
Clonality:	Monoclonal
Clone ID:	SPTAN1/3505
Isotype:	IgG2b
Light Chains:	kappa
Conjugate:	Unconjugated
Purification:	Protein A/G chromatography.
Concentration:	200 $\mu\text{g/ml}$
Product Form:	Liquid
Formulation:	Supplied in 10mM Phosphate Buffered Saline with 0.05% BSA and 0.05% Sodium Azide.
Storage:	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

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Specifications continued:

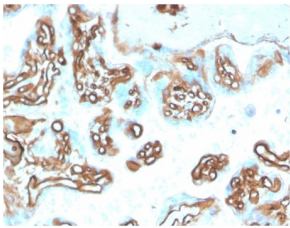
General Notes:

This monoclonal antibody is also available in a different formulation without BSA and Sodium Azide - Anti-alpha II Spectrin Antibody [SPTAN1/3505] - BSA and Azide free (A278398).

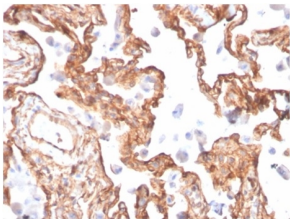
Disclaimer:

This product is for research use only. It is not intended for diagnostic or therapeutic use.

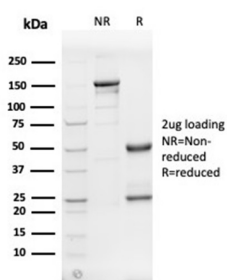
Images:



Immunohistochemical analysis of formalin-fixed, paraffin-embedded human placenta tissue using Anti-alpha II Spectrin Antibody [SPTAN1/3505].



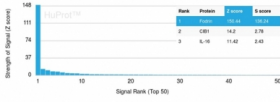
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human lung tissue using Anti-alpha II Spectrin Antibody [SPTAN1/3505].



SDS-PAGE analysis of Anti-alpha II Spectrin Antibody [SPTAN1/3505] under non-reduced and reduced conditions; showing intact IgG and intact heavy and light chains, respectively. SDS-PAGE analysis confirms the integrity and purity of the antibody.

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Images continued:



Analysis of protein array containing more than 19,000 full-length human proteins using Anti-alpha II Spectrin Antibody [SPTAN1/3505]. Z-Score and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target; a MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.