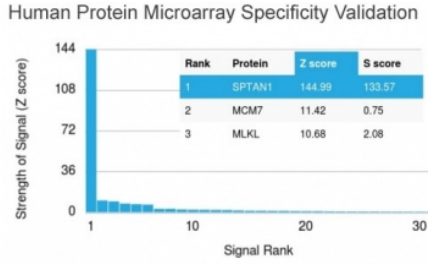
Alpha II Spectrin Antibody SPTAN1/3352 / Protein Microarray Validated [clone SPTAN1/3352] (V8096)

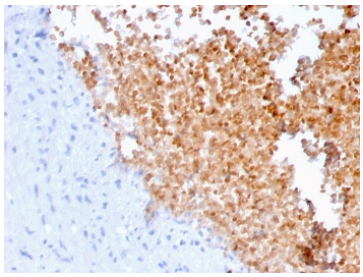
Catalog No.	Formulation	Size
V8096-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8096-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8096SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

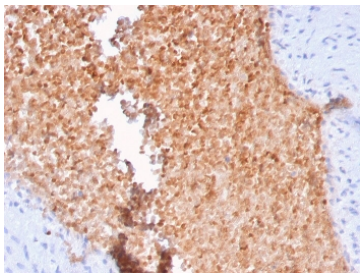
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	SPTAN1/3352
Purity	Protein G affinity chromatography
UniProt	Q13813
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Alpha II Spectrin Antibody SPTAN1/3352 is available for research use only.



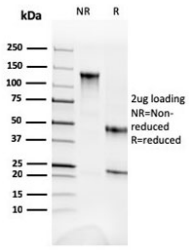
Alpha II Spectrin Antibody SPTAN1/3352 Protein Microarray Specificity Validation. Protein microarray analysis of Alpha II Spectrin Antibody SPTAN1/3352 / Protein Microarray Validated was performed using a HuProt(TM) microarray containing more than 19,000 full-length human proteins. The Z-score represents antibody signal strength in standard deviations above the mean signal across the array. The S-score represents the difference between the Z-scores of the intended target and the next highest-ranking signal, providing a measure of relative target specificity. The results demonstrate strong and highly selective recognition of SPTAN1 by clone SPTAN1/3352.



Alpha II Spectrin Antibody SPTAN1/3352 Human Lung Tissue IHC. Immunohistochemistry of FFPE human lung tissue using Alpha II Spectrin Antibody SPTAN1/3352 / Protein Microarray Validated shows cytoplasmic HRP-DAB brown staining in epithelial and inflammatory cells, consistent with SPTAN1 localization along the submembranous cytoskeleton. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 20 min followed by cooling prior to staining. This Alpha II Spectrin Antibody demonstrates detection of the spectrin cytoskeleton in human lung tissue.



Alpha II Spectrin Antibody SPTAN1/3352 Human Lung IHC. Immunohistochemistry of FFPE human lung tissue using Alpha II Spectrin Antibody SPTAN1/3352 / Protein Microarray Validated shows cytoplasmic HRP-DAB brown staining, consistent with SPTAN1 localization along the submembranous cytoskeleton. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 20 min followed by cooling prior to staining. This Alpha II Spectrin Antibody demonstrates detection of the spectrin cytoskeleton in human lung tissue.



SDS-PAGE analysis of purified, BSA-free Alpha II Spectrin antibody (clone SPTAN1/3352) as confirmation of integrity and purity.

Description

Alpha II Spectrin Antibody SPTAN1/3352 / Protein Microarray Validated recognizes alpha II spectrin, a large cytoskeletal scaffolding protein encoded by the SPTAN1 gene. Alpha II spectrin, also known as alpha fodrin and NEAS, is a major component of the spectrin-based cytoskeleton in non-erythroid cells. It associates with beta spectrins and actin to form a flexible structural network beneath the plasma membrane, helping maintain cell shape, mechanical stability and the organization of membrane-associated proteins.

Alpha II spectrin is broadly expressed across tissues and contributes to the architecture of epithelial, neuronal and other cell types. Spectrin complexes connect the plasma membrane with the actin cytoskeleton and provide scaffolding for ion channels, receptors, adhesion molecules and signaling proteins. These interactions support membrane organization and specialized cellular domains while allowing cells to withstand mechanical stress. Alpha II spectrin is therefore widely studied in research involving cytoskeletal organization, membrane stability and cellular structure.

SPTAN1 has particularly important functions in the nervous system, where spectrin-based networks contribute to axonal stability, neuronal membrane organization and the maintenance of specialized membrane domains. Pathogenic variants in SPTAN1 have been associated with neurodevelopmental and neurological disorders, including developmental and epileptic encephalopathies. These connections have made alpha II spectrin relevant to research into neuronal development, cytoskeletal integrity and mechanisms underlying neurological disease.

Alpha II spectrin is also a well-characterized substrate for calpains and caspases activated during cellular injury and apoptosis. Proteolytic cleavage can generate characteristic spectrin breakdown products that are studied in connection with apoptosis, neuronal injury, neurodegeneration and cytoskeletal damage. This regulated processing expands the research utility of alpha II spectrin beyond its structural role in the membrane-associated cytoskeleton.

Clone SPTAN1/3352 is a mouse monoclonal antibody directed against human alpha II spectrin/SPTAN1 and is Protein

Microarray Validated using a HuProt(TM) array containing more than 19,000 full-length human proteins. In HuProt analysis, the Z-score represents antibody signal strength in standard deviations above the mean signal across the array, while the S-score represents the difference between the intended target and the next highest-ranking signal, providing a measure of relative target specificity. An Alpha II Spectrin Antibody can support studies of spectrin cytoskeleton organization, membrane stability, apoptosis-associated proteolysis and neuronal structural biology.

Alpha fodrin is encoded by SPTAN1 and forms a major component of the non-erythroid spectrin cytoskeleton; additional reagents targeting this protein are available on the SPTAN1 Antibody page.

Application Notes

Optimal dilution of the Alpha II Spectrin Antibody SPTAN1/3352 / Protein Microarray Validated should be determined by the researcher.

Immunogen

A recombinant human partial protein (amino acids 2351-2475) was used as the immunogen for this SPTAN1 antibody.

Storage

Store the Alpha II Spectrin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Alpha II spectrin antibody, SPTAN1 antibody, Spectrin alpha chain non-erythrocytic 1 antibody, Alpha fodrin antibody, NEAS antibody

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