Product Name: KD-Validated SPTAN1 Mouse Monoclonal Antibody
Catalog #: KVAb00502
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:500-1:1,000
Molecular Weight	Calculated MW: 284.5kDa

Antigen Information

Gene Name	SPTAN1
Alternative Names	SPTAN1; Spectrin Alpha, Non-Erythrocytic 1; Spectrin Alpha Chain, Non-Erythrocytic 1; Spectrin, Non-Erythroid Alpha Subunit; Fodrin Alpha Chain; Alpha-II Spectrin; Alpha-Fodrin; SPTA2; Epididymis Secretory Sperm Binding Protein; Spectrin, Non-Erythroid Alpha Chain; HMND11; DEVEP; EIEE5; HMN11; SPG91; DEE5
Gene ID	6709.0
SwissProt ID	Q13813
Immunogen	Recombinant protein of human SPTAN1

Background

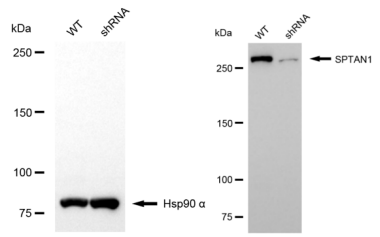
Spectrins are a family of filamentous cytoskeletal proteins that function as essential scaffold proteins that stabilize the plasma

membrane and organize intracellular organelles. Spectrins are composed of alpha and beta dimers that associate to form tetramers linked in a head-to-head arrangement. This gene encodes an alpha spectrin that is specifically expressed in nonerythrocytic cells. The encoded protein has been implicated in other cellular functions including DNA repair and cell cycle regulation. Mutations in this gene are the cause of early infantile epileptic encephalopathy-5. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2010]

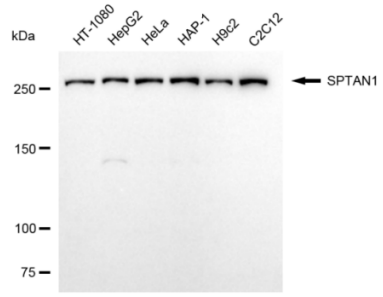
Research Area

Cancer

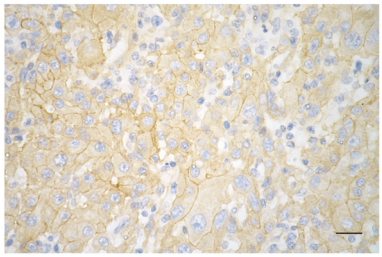
Image Data



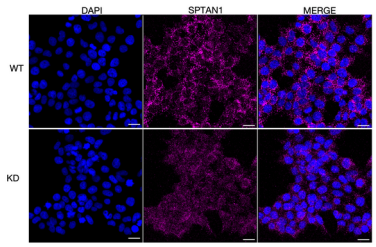
Western blotting analysis using SPTAN1 antibody (KVAb00502). SPTAN1 expression in wild-type (WT) and SPTAN1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with SPTAN1 antibody (KVAb00502, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



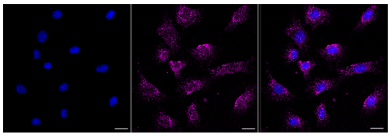
Western blotting analysis using SPTAN1 antibody (KVAb00502). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with SPTAN1 antibody (KVAb00502, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



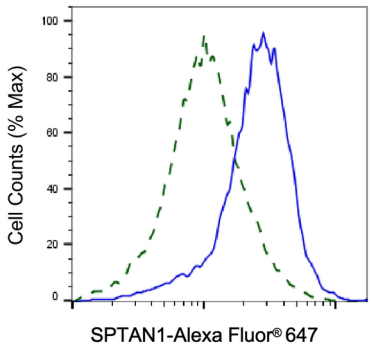
Immunohistochemistry was performed on paraffin-embedded human hepatocarcinoma using SPTAN1 antibody (KVAb00502, 1:1,000). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using SPTAN1 antibody (KVAb00502, 1:1,000), Top panel: wild-type (WT); Bottom panal: SPTAN1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; SPTAN1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of C2C12 cells with SPTAN1 antibody (KVAb00502, 1:1,000). Nuclei were stained blue with DAPI; SPTAN1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar, 20 µm.



Validation of SPTAN1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with SPTAN1 antibody (KVAb00502, 1:2,000) and analyzed using BD flow cytometer.