

10-7590: Monoclonal Antibody to Spectrin beta 3 (Clone: ABM5A16)

Clonality :	Monoclonal
Clone Name :	ABM5A16
Application :	FACS, WB
Reactivity :	Human
Gene :	SPTBN2
Gene ID :	6712
Uniprot ID :	O15020
Format :	Purified
Alternative Name :	Spectrin beta chain, non-erythrocytic 2, Beta-III spectrin, Spinocerebellar ataxia 5 protein
Isotype :	Mouse IgG2a, kappa
Immunogen Information :	A partial length recombinant protein (a.a 1280-1450) of Spectrin beta 3 was used as the immunogen for this antibody.

Description

Beta-III spectrin is a protein encoded by the gene SPTBN2, spans 2390 amino acids and consists of an amino-terminal actin binding domain (ABD), a central region containing seventeen spectrin repeat domains, and a carboxy-terminal pleckstrin homology domain. It is critical for the correct development and maintenance of Purkinje cell dendritic structure. Beta-III spectrin is expressed predominantly in the brain and is enriched in cerebellar Purkinje cells. In addition, Beta-III spectrin participates in endomembrane trafficking through its interaction with the actin related protein, ARP1. The functional unit of Beta-III spectrin is considered to be a tetrameric complex composed of two Beta-spectrin subunits and two Alpha-II-spectrin subunits. Mutations in the gene encoding Beta-III spectrin give rise to spinocerebellar ataxia type 5, a neurodegenerative disease characterized by progressive thinning of the molecular layer, loss of Purkinje cells and increasing motor deficits.

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein G Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 0.1-0.5 µg/ml, FACS: 2-4 µg/10⁶

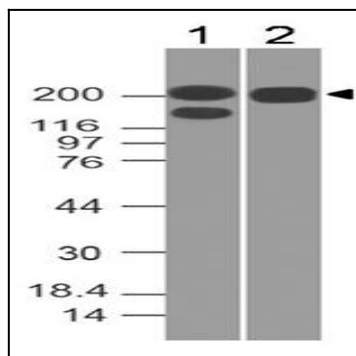


Figure-1: Western blot analysis of Spectrin beta 3. Anti-Spectrin beta 3 antibody (Clone: ABM5A16) was used at 0.1 $\mu\text{g/ml}$ on h Kidney and h Brain lysates.

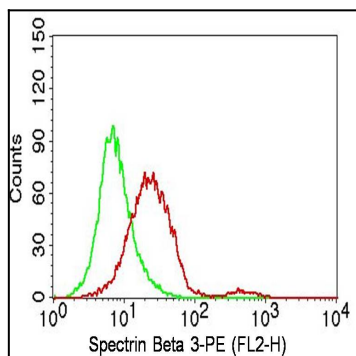


Figure-2: Intracellular flow analysis of human Spectrin beta 3 in A431 cells using 2 $\mu\text{g}/10^6$ cells of antibody (Clone: ABM5A16). Green represents isotype control; red represents anti-Spectrin beta 3 antibody. Goat anti-mouse PE conjugate was used as secondary antibody. (Cells were fixed with 4% paraformaldehyde for 10 min and washed with PBS by centrifuging at 1100 for 5 min followed by permeabilization for 20 min and washed again as mentioned above. Then cell were incubated with primary antibody for 45 min. and after washing the cells twice in PBS, incubated with conjugated secondary antibody for 30 min. Data acquisition was done after washing twice with PBS as mentioned above).

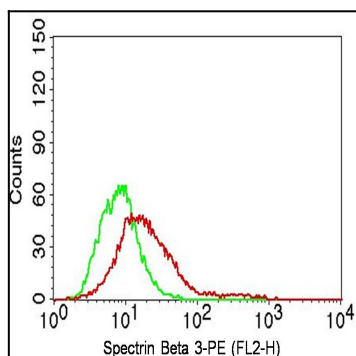


Figure-3: Intracellular flow analysis of human Spectrin beta 3 in HeLa cells using 2 $\mu\text{g}/10^6$ cells of antibody (Clone: ABM5A16). Green represents isotype control; red represents anti-Spectrin beta 3 antibody. Goat anti-mouse PE conjugate was used as secondary antibody. (Cells were fixed with 4% paraformaldehyde for 10 min and washed with PBS by centrifuging at 1100 for 5 min followed by permeabilization for 20 min and washed again as mentioned above. Then cell were incubated with primary antibody for 45 min. and after washing the cells twice in PBS, incubated with conjugated secondary antibody for 30 min. Data acquisition was done after washing twice with PBS as mentioned above).