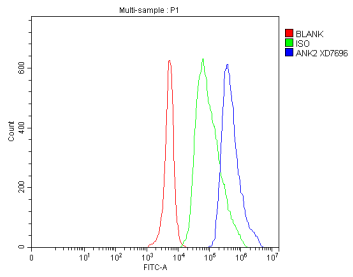
ANK2 Antibody / Ankyrin-2 Antibody (FY13558)

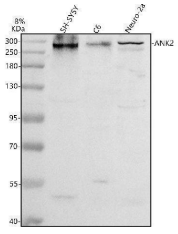
Catalog No.	Formulation	Size
FY13558	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q01484
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5 ug/ml
Limitations	This ANK2 Antibody / Ankyrin-2 Antibody is intended for research use only.



ANK2 Antibody by FACS in human SH-SY5Y cells. Intracellular flow cytometry using Ankyrin-2 Antibody shows a rightward fluorescence shift in fixed SH-SY5Y cells relative to the rabbit IgG isotype control. The antibody-stained population is shown in blue, the isotype control in green, and the unstained control in red. Cells were fixed with 4% paraformaldehyde, blocked with 10% normal goat serum, and incubated with primary antibody at 1 ug per 1 x 10^6 cells for 30 minutes at 20oC. Fluorescent secondary antibody was used for detection.



ANK2 Antibody by WB in neuronal cell lines. Western blot analysis using Ankyrin-2 Antibody shows a high-molecular-weight immunoreactive band near 260 kDa in human SH-SY5Y (lane 1), rat C6 (lane 2), and mouse Neuro-2a (lane 3) cell lysates, below the approximately 434 kDa predicted mass of giant ankyrin-B. Published studies document multiple alternatively spliced ankyrin-B isoforms, including 220 and 440 kDa proteins, although the detected band has not been confirmed as a specific isoform. Reduced lysates containing 30 ug protein per lane were resolved by 8% SDS-PAGE. Primary antibody was applied at 0.5 ug/mL overnight at 4oC before chemiluminescent detection.

Description

ANK2 Antibody / Ankyrin-2 Antibody detects ANK2, also called ankyrin-B, a large scaffolding protein that helps organize membrane proteins and the spectrin-based cytoskeleton. Ankyrins contain repeated membrane-binding motifs, a spectrin-binding region, and regulatory sequences that coordinate interactions with different partners. Rather than acting as an enzyme, ankyrin-B positions proteins within defined cellular compartments, where their location can be essential to normal function.

In cardiomyocytes, ankyrin-B contributes to the organization of ion transport machinery, including the sodium-calcium exchanger and other components involved in calcium homeostasis. Disruption of this organization can disturb electrical signaling and calcium handling even when the individual transport proteins are still present. Variants in ANK2 have been associated with cardiac arrhythmia phenotypes, sometimes referred to as ankyrin-B syndrome, with considerable variation in clinical presentation.

ANK2 also has important functions in neurons. Ankyrin-B contributes to axonal architecture, membrane organization, and interactions between the cytoskeleton and cellular transport systems. Different ANK2 isoforms, including a very large neuronal form, have specialized roles. This isoform diversity is relevant because changes affecting one ankyrin-B form may not have identical consequences for every tissue or developmental stage.

Ankyrin-B function illustrates how the spatial organization of signaling proteins can be as important as their abundance. In the heart, precise positioning supports coordinated ion movement; in neurons, it contributes to the structural integrity and organization of long cellular processes. NSJ Bioreagents offers the ANK2 Antibody in the context of research on membrane scaffolds and cytoskeletal organization. An ANK2 Antibody can help investigate ankyrin-B-associated pathways in cardiac and neuronal cell biology.

Explore related research targets in our Neuroscience Antibodies collection.

Application Notes

The appropriate working dilution of the ANK2 Antibody / Ankyrin-2 Antibody should be optimized by the end user.

Immunogen

The ANK2 Antibody was generated using e. coli-derived human ANK2 recombinant protein (amino acids T2363-E3931).

Storage

After reconstitution, the ANK2 Antibody may be stored at 4oC for up to one month. For longer storage, aliquot and freeze at -20oC for up to six months. Avoid repeated freezing and thawing.

Alternate Names

ANK2 antibody, Ankyrin-2 antibody, ankyrin 2 antibody, ANK 2 antibody, ANK2 rabbit polyclonal antibody

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