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Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3)

Catalog # ABO16593

Specification

Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) - Product Information

Application	**WB**
Primary Accession	P16157
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) . Tested in WB applications. This antibody reacts with Human.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) - Additional Information

Gene ID 286

Other Names
Ankyrin-1, ANK-1, Ankyrin-R, Erythrocyte ankyrin, ANK1 (HGNC:492), ANK

Calculated MW
206 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E.coli-derived human Ankyrin erythroid/ANK/ANK1 recombinant protein (Position: N1300-Q1844).

Purification
Immunogen affinity purified.

Storage	**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated**

freezing and thawing.

Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) - Protein Information

Name ANK1 (HGNC:492)

Synonyms ANK

Function
Component of the ankyrin-1 complex, a multiprotein complex involved in the stability and shape of the erythrocyte membrane (PubMed:35835865). Attaches integral membrane proteins to cytoskeletal elements; binds to the erythrocyte membrane protein band 4.2, to Na-K ATPase, to the lymphocyte membrane protein GP85, and to the cytoskeletal proteins fodrin, tubulin, vimentin and desmin. Erythrocyte ankyrins also link spectrin (beta chain) to the cytoplasmic domain of the erythrocytes anion exchange protein; they retain most or all of these binding functions.

Cellular Location
[Isoform Er1]: Cytoplasm, cytoskeleton. Note=Probably the other erythrocyte (Er) isoforms, are located near the surface of erythrocytic plasma membrane [Isoform Mu18]: Sarcoplasmic reticulum [Isoform Mu20]: Sarcoplasmic reticulum

Tissue Location
Isoform Mu17, isoform Mu18, isoform Mu19 and isoform Mu20 are expressed in skeletal muscle. Isoform Br21 is expressed in brain.

Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) - Images

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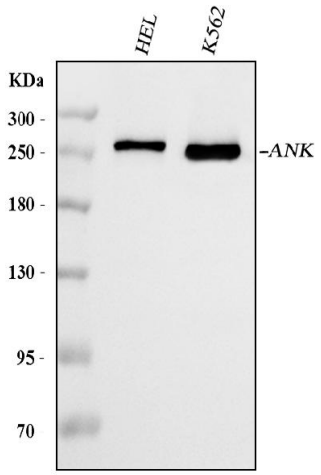

Figure 1. Western blot analysis of Ankyrin erythroid/ANK/ANK1 using anti-Ankyrin erythroid/ANK/ANK1 antibody (M02716).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HEL whole cell lysates,
Lane 2: human K562 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Ankyrin erythroid/ANK/ANK1 antigen affinity purified monoclonal antibody (Catalog # M02716) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Ankyrin erythroid/ANK/ANK1 at approximately 206 kDa. The expected band size for Ankyrin erythroid/ANK/ANK1 is at 206 kDa.

Anti-Ankyrin erythroid/ANK/ANK1 Antibody Picoband™ (monoclonal, 9I6C3) - Background

Ankyrin 1, erythrocytic, also known as ANK1, is a protein that in humans is encoded by the ANK1 gene. Ankyrins are a family of proteins that link the integral membrane proteins to the underlying spectrin-actin cytoskeleton and play key roles in activities such as cell motility, activation, proliferation, contact and the maintenance of specialized membrane domains. Multiple isoforms of ankyrin with different affinities for various target proteins are expressed in a tissue-specific, developmentally regulated manner. Most ankyrins are typically composed of three structural domains: an amino-terminal domain containing multiple ankyrin repeats; a central region with a highly conserved spectrin binding domain; and a carboxy-terminal regulatory domain which is the least conserved and subject to variation. Ankyrin 1, the prototype of this family, was first discovered in the erythrocytes, but since has also been found in brain and muscles. Mutations in erythrocytic ankyrin 1 have been associated in approximately half of all patients with hereditary spherocytosis. Complex patterns of alternative splicing in the regulatory domain, giving rise to different isoforms of ankyrin 1 have been described. Truncated muscle-specific isoforms of ankyrin 1 resulting from usage of an alternate promoter have also been identified.