SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Ankyrin erythroid antibody

SL7594R

Product Name:	Ankyrin erythroid
Chinese Name:	红细胞蛋白Ank1抗体
Alias:	ANK; ANK-1; Ank1; ANK1_HUMAN; Ankyrin 1; Ankyrin 1, erythrocytic; Ankyrin R; Ankyrin-1; Ankyrin-R; Erythrocyte ankyrin; SPH1; SPH2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	206kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Ankyrin erythroid:501-600/1881
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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 ankyrin1 resulting from usage of an alternate promoter have also been identified. [provided by RefSeq, Dec 2008].

Function:
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.
Isoform Mu17 together with obscurin in skeletal muscle may provide a molecular link between the sarcoplasmic reticulum and myofibrils.

Subunit:
Interacts with a number of integral membrane proteins and cytoskeletal proteins. Interacts (via N-terminus) with SPTB/spectrin (beta chain). Interacts (via N-terminus ANK repeats) with SLC4A1/erythrocyte membrane protein band 3 (via cytoplasmic N-terminus). Also interacts with TTN/titin. Isoform Mu17 interacts with OBSCN isoform 3/obscurin.

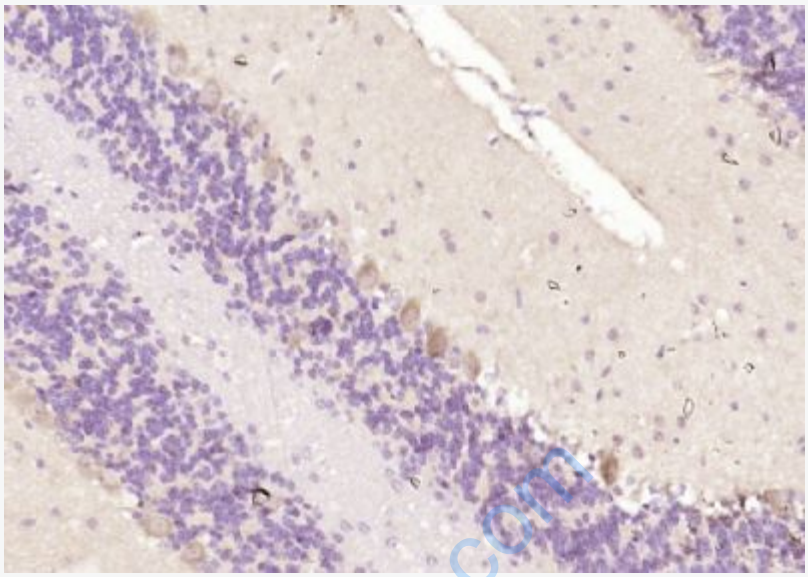
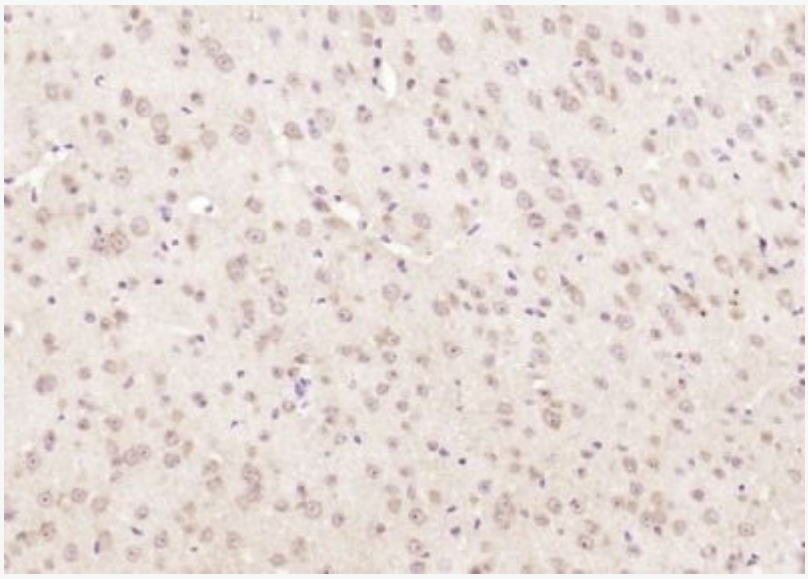
Subcellular Location:
Isoform Er1: Cytoplasm, cytoskeleton. Isoform Mu17: Membrane. Cytoplasm, myofibril, sarcomere, M line. Isoform Mu18: Sarcoplasmic reticulum. Isoform Mu19: Sarcoplasmic reticulum. Isoform Mu20: Sarcoplasmic reticulum.

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

Post-translational modifications:
Regulated by phosphorylation.
Palmitoylated.

DISEASE:
Defects in ANK1 are a cause of spherocytosis type 1 (SPH1) [MIM:182900]; also called hereditary spherocytosis type 1 (HS1). Spherocytosis is a hematologic disorder leading to chronic hemolytic anemia and characterized by numerous abnormally shaped erythrocytes which are generally spheroidal. Inheritance can be autosomal dominant or recessive.

	Similarity: Contains 23 ANK repeats. Contains 1 death domain. Contains 1 ZU5 domain. **SWISS:** P16157 **Gene ID:** 286 **Database links:** Entrez Gene: 353108Cow Entrez Gene: 286Human Entrez Gene: 11733Mouse Entrez Gene: 306570Rat Omim: 182900Human SwissProt: P16157Human SwissProt: Q02357Mouse Unigene: 654438Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Ankyrin erythroid) Polyclonal Antibody, Unconjugated (SL7594R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining. 

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