

Rabbit Anti-Spectrin (alpha + beta)antibody

SL10190R

Product Name	Spectrin (alpha + beta)
Chinese Name	血影蛋白 A 链红细胞型抗体
Alias	Spectrin alpha chain, erythrocytic 1; Alpha I spectrin; EL 2; EL2; Elliptocytosis 2; Elliptocytosis2; Erythrocyte alpha spectrin; erythrocyte; Erythroid alpha spectrin; Erythroid alpha-spectrin; Erythroid spectrin alpha; HPP; HS3; Spectrin alpha chain; Spectrin alpha chain erythrocyte; Spectrin alpha erythrocytic 1; SPH3; SPTA 1; SPTA; SPTA1; SPTA1_HUMAN; Spectrin alpha chain, erythrocytic 1.
Research Area	Cardiovascular Signal transduction
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse, Rat, (predicted: Human, Pig, Horse, Rabbit,) WB=1:500-2000
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	280kDa
Cellular localization	cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from Human Spectrin alpha chain, erythrocytic 1: 2151-2350/2419
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

Spectrin is an actin crosslinking and molecular scaffold protein that links the plasma membrane to the actin cytoskeleton, and functions in the determination of cell shape, arrangement of transmembrane proteins, and organization of organelles. It is a tetramer made up of alpha-beta dimers linked in a head-to-head arrangement. This gene is one member of a family of alpha-spectrin genes. The encoded protein is primarily composed of 22 spectrin repeats which are involved in dimer formation. It forms weaker tetramer interactions than non-erythrocytic alpha spectrin, which may increase the plasma membrane elasticity and deformability of red blood cells. Mutations in this gene result in a variety of hereditary red blood cell disorders, including elliptocytosis type 2, pyropoikilocytosis, and spherocytic hemolytic anemia. [provided by RefSeq, Jul 2008].

Function:

Spectrin is the major constituent of the cytoskeletal network underlying the erythrocyte plasma membrane. It associates with band 4.1 and actin to form the cytoskeletal superstructure of the erythrocyte plasma membrane.

Subunit:

Composed of non-homologous chains, alpha and beta, which aggregate side-to-side in an antiparallel fashion to form dimers, tetramers, and higher polymers. Interacts with FASLG.

Product Detail

Subcellular Location:

Cytoplasm, cytoskeleton. Cytoplasm, cell cortex.

DISEASE:

Defects in SPTA1 are the cause of elliptocytosis type 2 (EL2) [MIM:130600]. EL2 is a Rhesus-unlinked form of hereditary elliptocytosis, a genetically heterogeneous, autosomal dominant hematologic disorder. It is characterized by variable hemolytic anemia and elliptical or oval red cell shape.

Defects in SPTA1 are a cause of hereditary pyropoikilocytosis (HPP) [MIM:266140]. HPP is an autosomal recessive disorder characterized by hemolytic anemia, microspherocytosis, poikilocytosis, and an unusual thermal sensitivity of red cells.

Defects in SPTA1 are the cause of spherocytosis type 3 (SPH3) [MIM:270970]; also known as hereditary spherocytosis type 3 (HS3). Spherocytosis is a hematologic disorder leading to chronic hemolytic anemia and characterized by numerous abnormally shaped erythrocytes which are generally spheroidal. SPH3 is characterized by severe hemolytic anemia. Inheritance is autosomal recessive.

Similarity:

Belongs to the spectrin family.
Contains 3 EF-hand domains.
Contains 1 SH3 domain.
Contains 21 spectrin repeats.

SWISS:
P02549

Gene ID:
6708

Database links:

[Entrez Gene: 6708](#) Human

[Entrez Gene: 6710](#) Human

[Entrez Gene: 20739](#) Mouse

[Entrez Gene: 20741](#) Mouse

[Omim: 182860](#) Human

[Omim: 182870](#) Human

[SwissProt: P02549](#) Human

[SwissProt: P11277](#) Human

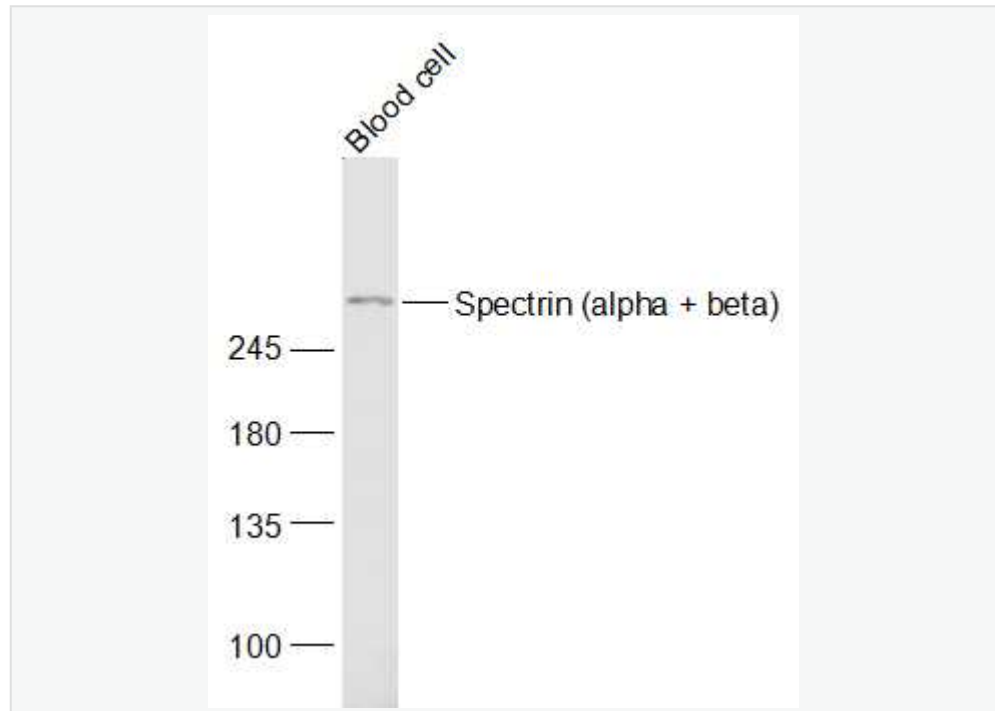
[SwissProt: P08032](#) Mouse

[SwissProt: P15508](#) Mouse

[Unigene: 119825](#) Human

[Unigene: 417303](#) Human

Product Picture



Sample:

Blood cell(Mouse) Lysate at 40 ug

Primary: Anti-Spectrin (alpha + beta) (SL10190R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 280 kD

Observed band size: 280 kD