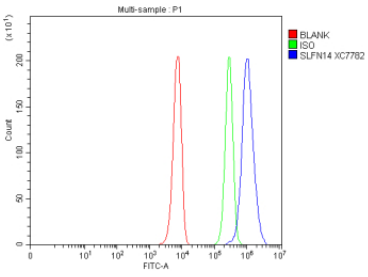
SLFN14 Antibody / Schlafen family member 14 (FY13141)

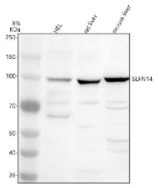
Catalog No.	Formulation	Size
FY13141	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P0C7P3
Applications	Western Blot: 0.25-0.5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This SLFN14 antibody is available for research use only.



Flow Cytometry analysis of K562 cells using anti-SLFN14 antibody. Overlay histogram showing K562 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SLFN14 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of SLFN14 using anti-SLFN14 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HEL whole cell lysates, Lane 2: rat liver tissue lysates, Lane 3: mouse liver tissue 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 rabbit anti-SLFN14 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A specific band was detected for SLFN14 at approximately 104 kDa. The expected molecular weight of SLFN14 is ~104 kDa.

Description

SLFN14 antibody detects Schlafen family member 14, an endoribonuclease that regulates platelet formation, immune function, and mRNA decay. The UniProt recommended name is Schlafen family member 14 (SLFN14). This protein belongs to the Schlafen family, which modulates cell proliferation, differentiation, and antiviral defense through RNA processing and translation control.

Functionally, SLFN14 antibody identifies a 505-amino-acid cytoplasmic enzyme that cleaves ribosomal and messenger RNA, regulating protein synthesis and megakaryocyte maturation. SLFN14 is expressed in platelets and hematopoietic cells, where it promotes proper thrombocyte formation and prevents excessive RNA accumulation. It also contributes to innate immune defense by degrading viral RNA.

The SLFN14 gene is located on chromosome 17q12 and is primarily expressed in bone marrow, platelets, and immune cells. SLFN14 activity links RNA metabolism with hematopoiesis and antiviral immunity. Its function depends on ATP-binding and nuclease domains that enable targeted RNA degradation.

Pathologically, mutations in SLFN14 cause inherited thrombocytopenia, a bleeding disorder characterized by reduced platelet count and function. These mutations impair endoribonuclease activity, leading to defective megakaryocyte development. Research using SLFN14 antibody supports studies in hematopoiesis, RNA biology, and immune regulation.

SLFN14 antibody is validated for western blotting, immunohistochemistry, and immunofluorescence to detect RNA-processing enzymes. NSJ Bioreagents provides SLFN14 antibody reagents optimized for studies in hematology, molecular biology, and innate immunity.

Structurally, Schlafen family member 14 features conserved Schlafen core and nuclease domains that coordinate RNA cleavage and nucleotide binding. This antibody enables exploration of SLFN14's role in platelet formation and RNA turnover.

Application Notes

Optimal dilution of the SLFN14 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SLFN14 recombinant protein (Position: R132-R843) was used as the immunogen for the SLFN14 antibody.

Storage

After reconstitution, the SLFN14 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.