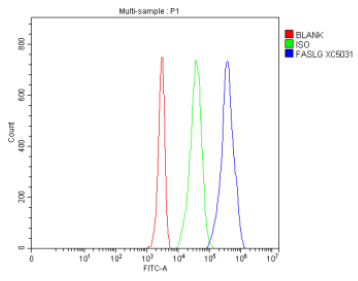
FASLG Antibody / FASL / Fas ligand (FY12296)

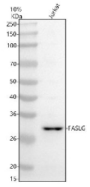
Catalog No.	Formulation	Size
FY12296	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
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	P48023
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This FASLG antibody is available for research use only.



Flow Cytometry analysis of Jurkat cells using anti-FASLG antibody. Overlay histogram showing Jurkat cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-FASLG 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 FASLG using anti-FASLG antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Jurkat 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 rabbit anti-FASLG 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. The expected molecular weight of FASLG is ~31 kDa.

Description

FASLG antibody detects Fas ligand, encoded by the FASLG gene on chromosome 1q23. FASLG antibody is widely applied in apoptosis, immune regulation, and cancer biology. Fas ligand is a type II transmembrane protein belonging to the TNF superfamily that induces apoptosis by binding its receptor Fas (CD95). This ligand-receptor interaction is essential for immune homeostasis, cytotoxic T cell function, and elimination of damaged or malignant cells.

Structurally, Fas ligand is a ~40 kDa protein with a short cytoplasmic tail, a transmembrane region, and a TNF homology domain that mediates trimerization and receptor binding. Fas ligand exists in membrane-bound and soluble forms, the latter generated by proteolytic cleavage. Membrane-bound Fas ligand is the primary inducer of apoptosis, whereas soluble Fas ligand modulates immune signaling and inflammation.

Functionally, Fas ligand is expressed on activated T cells, NK cells, and certain tissues. Engagement of Fas receptor by Fas ligand recruits FADD and initiates caspase-8 activation, leading to apoptosis. Beyond apoptosis, Fas ligand contributes to immune privilege, inflammation, and tissue injury. Researchers use FASLG antibody to study apoptosis, cytotoxic lymphocyte activity, and immune regulation.

Clinically, mutations in FASLG cause autoimmune lymphoproliferative syndrome (ALPS), characterized by defective lymphocyte apoptosis. Dysregulation of Fas ligand contributes to autoimmune disease, transplant rejection, and cancer immune evasion. Tumors exploit Fas ligand expression to induce apoptosis of infiltrating immune cells, aiding immune escape. Because of its dual roles in immune surveillance and pathology, Fas ligand is a target for therapeutic modulation. NSJ Bioreagents supplies FASLG antibody for immunology, apoptosis, and cancer studies.

Experimentally, FASLG antibody is applied in western blotting to detect the ~40 kDa protein, in flow cytometry to measure surface expression, and in immunohistochemistry to study tissue-specific regulation. Functional assays using FASLG antibody evaluate apoptosis induction in cell models.

Application Notes

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

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human FASL/FASLG was used as the immunogen for the FASLG antibody.

Storage

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