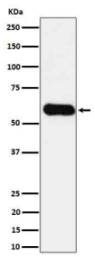
ICOSLG Antibody / CD275 [clone 31I03] (FY12242)

Catalog No.	Formulation	Size
FY12242	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31I03
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O75144
Applications	Western Blot : 1:500-1:2000
Limitations	This ICOSLG antibody is available for research use only.



Western blot analysis of CD275 in HUVEC cell lysate using ICOSLG antibody.

Description

ICOSLG antibody / CD275 detects inducible T-cell co-stimulator ligand, a member of the B7 family of immune regulatory proteins. ICOSLG interacts with its receptor, ICOS, which is expressed on activated T cells. This interaction delivers essential costimulatory signals that regulate T-cell activation, proliferation, differentiation, and cytokine production. The

ICOS-ICOSLG pathway is especially critical for the development and function of follicular helper T cells, which support germinal center reactions and promote high-affinity antibody responses.

Research using ICOSLG antibody / CD275 has revealed its central role in adaptive immunity. Antigen-presenting cells such as dendritic cells, B cells, and macrophages express ICOSLG, providing the signals needed for robust T-cell dependent immune responses. Engagement of ICOS by ICOSLG promotes B-cell class switching, enhances antibody secretion, and ensures the generation of long-lived plasma cells and memory B cells. These functions make ICOSLG indispensable for establishing effective humoral immunity.

Dysregulation of ICOSLG expression or signaling is linked to immune-related diseases. Overactivation of the ICOS-ICOSLG axis can drive autoimmunity by supporting excessive T-cell responses and autoantibody production. Conversely, mutations or deficiencies impair T-cell function and result in immunodeficiency syndromes marked by recurrent infections and poor antibody responses. Genetic studies have associated ICOSLG polymorphisms with systemic lupus erythematosus, type 1 diabetes, and inflammatory bowel disease, highlighting its importance in immune tolerance and regulation.

In transplantation, ICOSLG contributes to graft rejection by enhancing alloreactive T-cell activity. Targeting this pathway has been explored as a strategy to prolong graft survival and reduce immune-mediated damage. Conversely, therapeutic stimulation of the ICOS-ICOSLG axis has potential in vaccine design, where stronger antibody responses are desired.

Oncology research has shown that ICOSLG expression within the tumor microenvironment can significantly affect anti-tumor immunity. In some cases, ICOSLG enhances T-cell activity against cancer cells, while in others it may contribute to immune evasion depending on the balance of regulatory and effector T-cell populations. Therapies modulating the ICOS-ICOSLG pathway are being investigated as potential adjuncts to checkpoint blockade and other immunotherapies, making it a promising focus for translational research.

Antibodies against ICOSLG are validated for flow cytometry, western blot, and immunohistochemistry. These reagents allow researchers to measure expression levels across immune subsets, evaluate tissue localization, and monitor functional changes in experimental models. By enabling precise detection of ICOSLG, they support studies into immune regulation, autoimmunity, cancer, and transplant biology.

NSJ Bioreagents supplies this ICOSLG antibody / CD275 for research in immunology, oncology, and translational medicine.

Application Notes

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

Immunogen

A synthesized peptide derived from human CD275 was used as the immunogen for the ICOSLG antibody.

Storage

Store the ICOSLG antibody at -20oC.