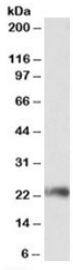
CD3G Antibody (R35215)

Catalog No.	Formulation	Size
R35215-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Dog, Pig, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	917
Applications	Western blot: 0.3-1ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This CD3G antibody is available for research use only.



Western blot testing of Jurkat lysate with CD3G antibody at 0.3ug/ml. Predicted molecular weight: ~21kDa.

Description

CD3G Antibody recognizes CD3 gamma (CD3G), a transmembrane glycoprotein that forms an essential component of the T-cell receptor (TCR)-CD3 signaling complex. Together with the CD3 delta, CD3 epsilon, and CD3 zeta chains, CD3 gamma enables signal transduction following recognition of peptide antigens presented by major histocompatibility complex molecules. Activation of the T-cell receptor initiates intracellular signaling cascades that regulate T-cell activation, proliferation, cytokine production, differentiation, and immune effector functions. Consequently, CD3G Antibody

is widely used to investigate T-cell biology, adaptive immunity, and antigen receptor signaling.

CD3G is expressed primarily by mature T lymphocytes and developing thymocytes, where it is required for proper assembly, surface expression, and stability of the T-cell receptor complex. The cytoplasmic domain of CD3 gamma contains immunoreceptor tyrosine-based activation motifs (ITAMs) that become phosphorylated following antigen engagement, promoting recruitment of downstream signaling molecules including ZAP70 and LAT. These signaling events drive the activation and expansion of antigen-specific T cells while contributing to immune surveillance and host defense. CD3G Antibody is therefore a valuable reagent for studies examining T-cell development, activation, and immune regulation.

Mutations in the CD3G gene have been associated with primary immunodeficiency disorders characterized by impaired T-cell function, recurrent infections, autoimmunity, and defective adaptive immune responses. Altered CD3G expression and T-cell receptor signaling have also been implicated in lymphoma, leukemia, chronic inflammatory diseases, transplant rejection, and responses to cancer immunotherapy. As therapeutic strategies targeting T-cell activation continue to expand, CD3G remains an important molecule for investigating immune signaling pathways and mechanisms of immunomodulation.

NSJ Bioreagents offers highly validated CD3G Antibody products for reliable detection of endogenous CD3 gamma in lymphoid tissues and immune cell populations. These antibodies support studies of T-cell receptor signaling, lymphocyte development, immune regulation, and disease pathogenesis while enabling accurate characterization of CD3G expression and localization. Researchers studying adaptive immunity, T-cell function, and immunotherapy can rely on CD3G Antibody for consistent and reproducible results.

Learn more about the role of CD3 gamma in T-cell receptor complex assembly, antigen recognition and T-cell activation on our CD3 Gamma Antibody / T-Cell Receptor Complex Antibody page.

Application Notes

Optimal dilution of the CD3G antibody should be determined by the researcher.

Immunogen

Amino acids QDGVRQSRASDKQT were used as the immunogen for this CD3G antibody.

Storage

Aliquot and store the CD3G antibody at -20oC.

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