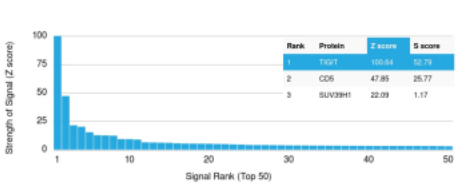
TIGIT Antibody / T-cell immunoreceptor with Ig and ITIM domains [clone TIGIT/3033] (V5871)

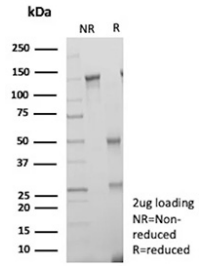
Catalog No.	Formulation	Size
V5871-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5871-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5871SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	TIGIT/3033
UniProt	Q495A1
Localization	Nucleus
Applications	ELISA :
Limitations	This TIGIT/T-cell immunoreceptor with Ig and ITIM domains antibody is available for research use only.



Analysis of Protein Array containing more than 19,000 full-length human proteins using TIGIT antibody (TIGIT/3033). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



SDS-PAGE Analysis of purified TIGIT antibody (clone TIGIT/3033). Confirmation of Purity and Integrity of Antibody.

Description

TIGIT antibody targets T-cell immunoreceptor with Ig and ITIM domains, an immune checkpoint receptor encoded by the TIGIT gene and expressed primarily on activated T cells, regulatory T cells, and natural killer cells. TIGIT is a member of the immunoglobulin superfamily and functions as an inhibitory receptor that modulates immune activation by transmitting suppressive signals upon ligand engagement. Through this role, TIGIT contributes to the fine-tuning of immune responses and maintenance of peripheral tolerance.

TIGIT is localized to the cell surface, where it interacts with poliovirus receptor family ligands such as CD155 and CD112 expressed on antigen-presenting cells and tumor cells. Ligand binding triggers intracellular signaling through the immunoreceptor tyrosine-based inhibitory motif (ITIM) domain, leading to attenuation of T-cell receptor signaling and reduced cytokine production. TIGIT antibody detection is therefore relevant for studying immune checkpoint pathways and cell-cell interactions within immune microenvironments.

Functionally, TIGIT suppresses effector T-cell proliferation and cytotoxic activity while enhancing the immunosuppressive function of regulatory T cells. In natural killer cells, TIGIT engagement reduces cytolytic activity and interferon gamma production. These coordinated effects position TIGIT as a key regulator of immune exhaustion and tolerance. TIGIT antibody reagents support research into immune regulation, checkpoint signaling, and adaptive immune balance.

Aberrant TIGIT expression has been observed in chronic infections, autoimmune disorders, and multiple cancer types. Elevated TIGIT levels are frequently associated with T-cell exhaustion within tumor microenvironments, where TIGIT contributes to immune evasion by malignant cells. As a result, TIGIT has emerged as an important target in immuno-oncology research, particularly in combination with other checkpoint pathways such as PD-1 and CTLA-4. These associations underscore the relevance of TIGIT antibody-based detection in studies of tumor immunity and immune dysfunction.

Clone TIGIT/3033 is designed to recognize T-cell immunoreceptor with Ig and ITIM domains in research applications. TIGIT antibody reagents are suitable for detecting protein expression and localization in immune cell populations and tissue samples, supporting investigations into immune checkpoint biology, T-cell regulation, and disease-associated immune suppression.

Application Notes

Optimal dilution of the TIGIT/T-cell immunoreceptor with Ig and ITIM domains antibody should be determined by the researcher.

Immunogen

Recombinant full-length human TIGIT protein was used as the immunogen for the TIGIT/T-cell immunoreceptor with Ig and ITIM domains antibody.

Storage

TIGIT/T-cell immunoreceptor with Ig and ITIM domains antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.