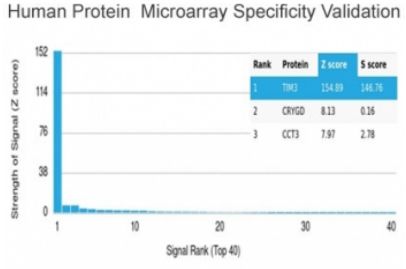
CD366 Antibody TIM3/4027 / Microarray Validated TIM-3 Antibody [clone TIM3/4027] (V9177)

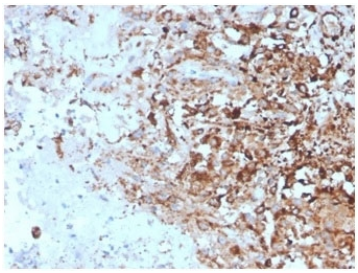
Catalog No.	Formulation	Size
V9177-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9177-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9177SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

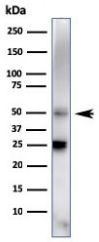
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	TIM3/4027
Purity	Protein A/G affinity
UniProt	Q8TDQ0
Localization	Cell Surface
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CD366 Antibody TIM3/4027 / Microarray Validated TIM-3 Antibody is available for research use only.



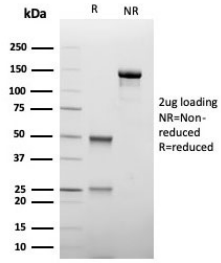
CD366 Antibody TIM3/4027 HuProt protein microarray specificity analysis. Protein microarray analysis using Microarray Validated TIM-3 Antibody clone TIM3/4027 against more than 19,000 full-length human proteins demonstrates preferential recognition of TIM-3, with substantial separation between the intended target and the next highest-ranking protein. The Z-score represents the binding signal in standard deviations above the mean array signal, while the S-score represents the difference between the Z-scores of the two highest-ranking proteins.



CD366 Antibody TIM3/4027 IHC staining of human lymph node tissue. Immunohistochemical analysis of FFPE human lymph node tissue using Microarray Validated TIM-3 Antibody clone TIM3/4027. Heat-induced epitope retrieval was performed by boiling tissue sections in 10mM Tris buffer containing 1mM EDTA (pH 9) for 20 minutes, followed by cooling before staining.



CD366 Antibody TIM3/4027 WB analysis of human spleen tissue. Western blot analysis of human spleen tissue lysate using Microarray Validated TIM-3 Antibody clone TIM3/4027 detects bands at approximately 25 and 50 kDa. TIM-3 has a calculated molecular weight of approximately 33 kDa, with glycosylation increasing its apparent molecular weight. The identity of the lower molecular weight band has not been confirmed.



CD366 Antibody TIM3/4027 SDS-PAGE analysis of purified monoclonal antibody. SDS-PAGE analysis of purified Microarray Validated TIM-3 Antibody clone TIM3/4027 under reducing (R) and non-reducing (NR) conditions assesses antibody purity and structural integrity.

Description

CD366 Antibody TIM3/4027 / Microarray Validated TIM-3 Antibody targets an immunoregulatory cell surface receptor involved in lymphocyte differentiation, innate immune recognition and the regulation of inflammatory responses. CD366, also known as T-cell immunoglobulin and mucin domain-containing protein 3 (TIM-3), is encoded by the HAVCR2 gene and belongs to the TIM family of transmembrane glycoproteins. Its extracellular immunoglobulin-like domain and glycosylated mucin domain facilitate interactions with extracellular ligands and neighboring cells.

CD366 was initially identified as a marker associated with differentiated type 1 helper T cells. Subsequent studies established its expression in cytotoxic T cells, regulatory T cells, natural killer cells, monocytes, macrophages and dendritic cells. Its distribution across multiple immune cell populations reflects its involvement in both innate and adaptive immunity. Expression levels can change in response to cellular differentiation, inflammatory cytokines and persistent antigenic stimulation.

Interactions between CD366 and phosphatidylserine contribute to the recognition of apoptotic cells and the regulation of cellular clearance. Other reported interacting partners, including galectin-9 and HMGB1, have been implicated in lymphocyte regulation and modulation of inflammatory signaling. The functional consequences of these interactions depend on the cellular context and the availability of intracellular signaling proteins.

CD366 expression is frequently associated with functionally exhausted T-cell populations during chronic infection and tumor progression. Coexpression with inhibitory receptors such as PD-1 and LAG-3 can characterize lymphocyte populations exhibiting impaired effector activity. However, CD366 expression alone does not necessarily establish cellular exhaustion, as the receptor is also expressed by activated and functionally competent immune cells.

Within lymphoid tissues and the tumor microenvironment, CD366 participates in complex interactions between immune cell populations that influence inflammatory activity, immune surveillance and tissue homeostasis. Its expression in tumor-associated regulatory T cells and myeloid cells has generated considerable interest in immune checkpoint research.

CD366 Antibody TIM3/4027 provides a research tool for investigating immune cell phenotypes, lymphocyte differentiation, apoptotic cell recognition, tumor-associated immune regulation and the mechanisms governing cellular immune responses.

Explore our TIM-3 antibody for additional research into immune checkpoint regulation, T-cell exhaustion and lymphocyte-associated immune responses.

Application Notes

Optimal dilution of the CD366 Antibody TIM3/4027 / Microarray Validated TIM-3 Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 22-202 was used as the immunogen for the TIM-3 / CD366 antibody.

Storage

Aliquot the TIM-3 / CD366 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

TIM-3 antibody, TIM3 antibody, HAVCR2 antibody, TIMD3 antibody, KIM-3 antibody, Hepatitis A virus cellular receptor 2 antibody, T-cell immunoglobulin and mucin domain-containing protein 3 antibody

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