

Technical Data Sheet

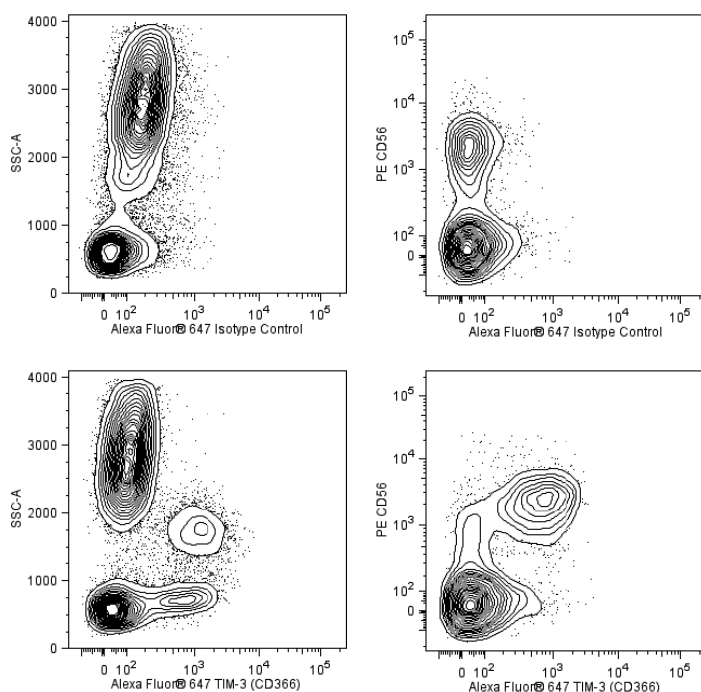
Alexa Fluor® 647 Mouse Anti-Human TIM-3 (CD366)

Product Information

Material Number:	565558
Alternate Name:	CD366; HAVCR2; TIM3; T cell immunoglobulin mucin-3; TIMD-3; KIM-3
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	7D3
Immunogen:	Human TIM-3
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	X
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 7D3 monoclonal antibody specifically binds to T cell immunoglobulin mucin 3 (TIM-3) which is also known as, CD366, or T-cell immunoglobulin and mucin domain-containing protein 3 (TIMD-3/TIMD3). CD366 is encoded by the *HAVCR2* gene (Hepatitis A virus cellular receptor 2). CD366 is a type I transmembrane glycoprotein and belongs to the human TIM family (along with TIM-1 and TIM-4) within the immunoglobulin superfamily. CD366 is expressed on Th1, Tc1, Th17, Treg, NK T, and NK cells. CD366 is also expressed on dendritic cells, mast cells, monocytes, and macrophages. It is not expressed by Th2 and B cells. CD366 helps maintain peripheral immune tolerance and homeostasis. CD366 regulates macrophage activation and is a negative regulator of Th1 cell function. Crosslinking of cell surface CD366 by binding to Galectin-9 and/or phosphatidylserine appears to play an important role in either positively or negatively regulating leucocyte functions, such as cytokine production or the phagocytosis of apoptotic cells. CD366 may also be useful as an AML stem cell surface marker because it appears to be more highly expressed by AML leukemia stem cells than by normal bone marrow hematopoietic stem cells.



Multiparameter flow cytometric analysis of TIM-3 (CD366) expression on human peripheral blood cells. Human whole blood was stained with PE Mouse Anti-Human CD56 antibody (Cat. No. 555516/561903) and either Alexa Fluor® 647 Mouse IgG1 κ Isotype Control (Cat. No. 565571) or Alexa Fluor® 647 Mouse Anti-Human TIM-3 (CD366) antibody (Cat. No. 565558/565559). Erythrocytes were lysed with BD FACS Lysing Solution (Cat. No. 349202).

Left Plots: The two-parameter flow cytometric contour plots show the correlated expression patterns of TIM-3 (CD366) expression (or Ig Isotype control staining) versus side scattered light-signals (SSC-A) distinguishing intact monocyte (intermediate SSC-A) and lymphocyte (low SSC-A) populations.

Right Plots: The two-color flow cytometric contour plots show the correlated expression of CD56 versus TIM-3 (CD366) [or Ig Isotype control staining]. Gated events with the forward and side-light scattering characteristics of intact lymphocytes are displayed.

Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

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Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	BD FACST [™] Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
561903	PE Mouse Anti-Human CD56	25 Tests	B159
555516	PE Mouse Anti-Human CD56	100 Tests	B159
565559	Alexa Fluor [®] 647 Mouse Anti-Human TIM-3 (CD366)	25 Tests	7D3
565571	Alexa Fluor [®] 647 Mouse IgG1 κ Isotype Control	50 μ g	MOPC-21

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. The Alexa Fluor[®], Pacific Blue[™], and Cascade Blue[®] dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor[®] dyes (except for Alexa Fluor[®] 430), Pacific Blue[™] dye, and Cascade Blue[®] dye are covered by pending and issued patents.
6. Alexa Fluor[®] is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Alexa Fluor[®] 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

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