# Human TIM-4 Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse $IgG_1$ Clone # 921832

Catalog Number: FAB2929T

25 Tests

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human TIM-4 in direct ELISAs. |
| **Source** | Monoclonal Mouse $IgG_1$ Clone # 921832 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human TIM-4<br>Glu25-Leu315<br>Accession # Q96H15 |
| **Conjugate** | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm |
| **Formulation** | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

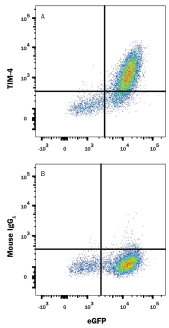
## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Flow Cytometry** | 5 µL/$10^6$ cells | See Below |

## DATA

### Flow Cytometry




**Detection of TIM-4 in HEK Human Cell Line Transfected with Human TIM-4 and eGFP by Flow Cytometry.** HEK293 human embryonic kidney cell line transfected with human TIM-4 and eGFP was stained with and either (A) Mouse Anti-Human TIM-4 Alexa Fluor® 594-conjugated Monoclonal Antibody (Catalog # FAB2929T) or (B) Mouse $IgG_1$ Alexa Fluor 594 Isotype Control (Catalog # IC002T). View our protocol for Staining Membrane-associated Proteins.

## PREPARATION AND STORAGE

| | |
|---|---|
| **Shipping** | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Protect from light. Do not freeze.**<br>• 12 months from date of receipt, 2 to 8 °C as supplied. |



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## BACKGROUND

TIM-4 (T cell; immunoglobulin; mucin-4), also known as SMUCKLER, is a 60 kDa member of the TIM family of immune regulating proteins. TIMs are type I transmembrane proteins with one Ig-like V domain and one Ser/Thr-rich mucin domain (1 - 3). The human TIM-4 cDNA encodes a 378 amino acid (aa) precursor that includes a 24 aa signal sequence, a 290 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 43 aa cytoplasmic tail (4). Structurally, TIM-4 is distinguished from other TIMs by the presence of an RGD motif in its Ig domain and the lack of a site for tyrosine phosphorylation in its cytoplasmic tail. The mucin domain in TIM-4 is larger than in TIM-1 or TIM-3. Within the ECD, human TIM-4 shares 35% and 23% aa sequence identity with TIM-1 and TIM-3, respectively. A TIM-2 ortholog has not been identified in human. The ECD of human TIM-4 shares 45% aa sequence identity with that of mouse and rat TIM-4. TIM-4 is expressed by macrophages and mature dendritic cells but not by lymphocytes (4, 5). TIM-4 binds specifically to TIM-1 which is also the cellular receptor for the hepatitis A virus, and has been implicated in the development of asthma (5 - 7). Among hematopoietic cells, TIM-1 is expressed on activated B and T cells, preferentially in the Th2 subset of $CD4^+$ T cells (5, 8). The interaction of TIM-4 with TIM-1 induces costimulatory and hyperproliferative signals in T cells (5).

**References:**

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## PRODUCT SPECIFIC NOTICES





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