

# Product datasheet for TA386210

## Havcr1 Rabbit Monoclonal Antibody [Clone ID: 3B3]

### **Product data:**

#### OriGene Technologies, Inc.

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Product Type:	Primary Antibodies
Clone Name:	3B3
Applications:	FC, IF, IHC
Reactivity:	Mouse
Host:	Rabbit
lsotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	This antibody was raised by immunising female Lewis strain rats (Harlan Sprague-Dawley) subcutaneously with mouse TIM-1–Ig in complete Freund's adjuvant (CFA), followed by multiple 'boosting' with mouse TIM-1–Ig in PBS.



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	Havcr1 Rabbit Monoclonal Antibody [Clone ID: 3B3] – TA386210
Specificity:	This antibody is specific for murine TIM-1, a member of the T cell immunoglobulin domain, mucin-like domain (TIM) gene family. TIM-1 has been found on activated CD4+ T cells, mast cells, and a subset of B cells. TIM-1 is involved in renal injury, tissue homeostasis, and T cell costimulation, and promotes the differentiation of Th2 cells and the production of IL-4. TIM-1 can bind several ligands, including Hepatitis A virus, phosphatidylserine, TIM4, IgA, as well as itself.
	This antibody has been used in multiple FACS analyses, such as to determine if specific B cell subsets or if B cell-derived interleukin-10 contributes to tolerance (Lai et al, 2015), to test if blocking several checkpoint receptors boosts anti-tumor immunity in a low-dose, lympho-depleting whole body irradiation model (Jing et al, 2015), and to study the functions of kidney pericytes in vascular stability (Schrimpf et al, 2012). This antibody has also been used in immunohistochemistry to investigate the distinct role of matrix metalloproteinase-3 in TIM-1 shedding by kidney proximal tubular epithelial cells (Lim et al. 2012), and to demonstrate how B $\beta$ (15-42) attenuates the effect of ischemia-reperfusion injury in renal transplantation (Sörensen et al, 2011). In addition, in vivo applications of this agonistic anti-TIM-1 antibody (clone 3B3) has been shown, for instance, to heighten T cell activation and prevent the development of respiratory tract tolerance in a Th2-driven model of asthma (Umetsu et al, 2005), to increase the frequency of antigen-specific T cells, the production of the proinflammatory cytokines IFN-y and IL-17, and thus the severity of experimental autoimmune encephalomyelitis (Sheng et al, 2007), as well as to deprogram Tregs and prevent transplant tolerance in mice (Degauque et al, 2008). The agonistic effect of 3B3 is exerted by cross-linking of TIM-1 molecules, as Fab fragments of 3B3 do not show this activity (Umetsu, 2005). As this cross-linking was observed in the presence of dendritic cells, using a rat IgG2a version of theantibody, the cross-linking is likely Fc-dependet.
Formulation:	PBS with 0.02% Proclin 300.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
Stability:	3 years from dispatch.
Gene Name:	hepatitis A virus cellular receptor 1
Database Link:	<u>Entrez Gene 171283 Mouse</u> <u>Q5QNS5</u>
Synonyms:	HAVCR; HAVCR-1; KIM-1; KIM1; TIM; TIM-1; TIM1; TIMD-1; TIMD1
Note:	This chimeric rabbit antibody was made using the variable domain sequences of the original Rat IgG2a format, for improved compatibility with existing reagents, assays and techniques.

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#### **Product images:**



Surface plasmon resonance (SPR) sensorgram anti-TIM-1 (TA386210) 3B3 binding to TIM-1 Fcfusion protein. Binding of mouse TIM-1 Fc-fusion protein to immbolised the rabbit IgG chimeric version of 3B3 (TA386210). The TIM-1 Fc-fusion protein was injected and allowed to associate with TA386210 between 1080s and 1250s, before a dissociation phase between 1250s and 1800s. The TIM-1 Fc-fusion protein showed rapid binding to TA386210 and following ligand removal remained strongly bound. This suggests that TA386210 has a very high affinity for the TIM-1 Fc-fusion protein.

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