



碧云天生物技术/Beyotime Biotechnology  
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## Recombinant Biotinylated Human TIM4 (Avi-Tag)

产品编号	产品名称	包装
P4301-10μg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	10μg
P4301-50μg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	50μg
P4301-200μg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	200μg
P4301-1mg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	1mg

### 产品简介:

Species	Gene ID	Accession	Source	Length	MW	Tag
Human	91937	Q96H15	<i>E.coli</i>	139aa	16kDa	His-Tag & Avi-Tag

蛋白信息(About this protein)	
名称(Name)	Recombinant Biotinylated Human TIM4 (Avi-Tag); 重组生物素化人TIM4蛋白
别名(Synonyms)	T-cell immunoglobulin and mucin domain containing 4, T-cell membrane protein 4, T-cell immunoglobulin mucin receptor 4, TIM-4, TIMD4, SMUCKLER, Biotinylated TIM4, Biotin-TIM4, 生物素标记TIM4, 生物素标记人TIM4
产品简介 (Background)	<p>Beyotime's Recombinant Biotinylated Human TIM4 (Avi-Tag) was expressed in <i>E.coli</i> and purified, which contain the Ig-like V domain (25-126aa) of full length of TIM-4 with His-Tag and Avi-Tag fusion at the C-terminus. Biotin Labeling Kit for Avi-tag Protein with BirA (P0630) was used to achieve biotin labeling of Human TIM4.</p> <p>TIMs are type I transmembrane proteins, with the N terminus containing the variable Ig-like (IgV) domain extending from the plasma membrane and the C-terminal tail largely mediating intracellular signaling oriented toward the cytosol. The <i>Tim</i> gene family consists of eight members (<i>Tim-1-8</i>) on mouse chromosome 11B1.1 and three members (<i>Tim-1, Tim-3, and Tim-4</i>) on human chromosome 5q33.2. TIM1, TIM2, and TIM3 were all found to be expressed by T cells and involved in the regulation of Th cells. TIM4 is different from other TIM molecules in that it is expressed exclusively on antigen-presenting cells (APCs), particularly on mature myeloid-derived DCs and macrophages but not by lymphocytes.</p> <p>Mature human TIM4 consists of a 290aa extracellular domain (ECD), a 21aa transmembrane segment and a 43aa cytoplasmic tail. TIM4 is involved in immune regulation such as to initiate skewed Th2 polarization and to mediate phagocytosis of apoptotic cells. TIM4 also binds specifically to TIM1 which is also the cellular receptor for hepatitis A virus and has been implicated in the development of asthma. TIM4 is also found in tumor tissue such as histiocytic and dendritic cell neoplasms, which consistently express TIM4. It has been suggested that these molecules can be new markers of neoplasms derived from histiocytic and dendritic cells. TIM4 contains IgV domain with integrin-binding site as well as a unique metal-ion-dependent ligand binding site for phosphatidylserine (PS). Binding of TIM4 to PS displays the highest affinity and depends on Ca<sup>2+</sup>. This feature allows to efficiently capture SEVs (Small extracellular vesicles) using TIM4-beads and then elute intact SEVs from the TIM4-beads [1-2].</p>
产品用途 (Applications)	Ligand for HAVCR1/TIMD1. Phosphatidylserine receptor that enhances the engulfment of apoptotic cells. Involved in regulating T-cell proliferation and lymphotoxin signaling. Recombinant Biotinylated Human TIM4 (Avi-Tag) can be used to detect or isolate apoptotic cells or exosomes.
外观 (Physical appearance)	Liquid

内毒素 (Endotoxin)	<0.1EU/μg by LAL method
浓度 (Concentration)	0.5mg/ml
纯度(Purity)	>98% by SDS-PAGE
储存液 (Storage buffer)	PBS pH7.3±0.1

➤ 本产品经SDS-PAGE电泳检测蛋白纯度和分子量参考图1。

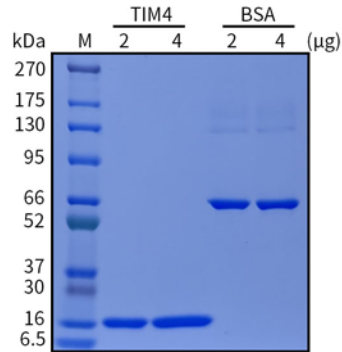


图1. 碧云天Recombinant Biotinylated Human TIM4 (Avi-Tag) (P4301)的SDS-PAGE电泳检测图。本蛋白经BeyoGel™ Plus PAGE预制胶(Hepes, 4-15%, 10孔) (P0519)电泳, Marker为BeyoColor™彩色预染蛋白分子量标准(6.5-270kD) (P0071/P0072), 并经BeyoBlue™考马斯亮蓝超快染色液(P0017F)染色。实际检测结果可能会因样品和检测条件等的不同而存在差异, 图中数据仅供参考。

➤ 本产品经Western blot检测His标签及Biotin标记Avi标签参考图2。

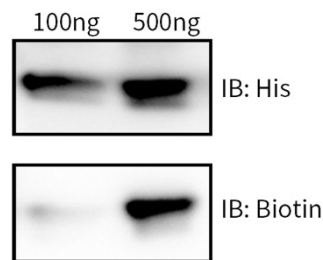


图2. 碧云天Recombinant Biotinylated Human TIM4 (Avi-Tag) (P4301)经Western blot检测His标签及Biotin标记Avi标签效果图。100ng和500ng的本蛋白经BeyoGel™ Plus PAGE预制胶(Hepes, 4-15%, 10孔) (P0519)电泳后进行Western检测, 使用His Tag Mouse Monoclonal Antibody (HRP Conjugated) (AF2879), 辣根过氧化物酶标记Streptavidin (A0305)孵育。Marker为BeyoColor™彩色预染蛋白分子量标准(6.5-270kD) (P0071/P0072)。Western印迹成像使用BeyoImager™ 600化学发光成像系统(EI600)完成。实际结果会因实验条件、检测仪器等的不同而存在差异, 图中数据仅供参考。

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P4301-10μg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	10μg
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P4301-1mg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	1mg
—	说明书	1份

### 保存条件:

-20°C保存, 一年有效。-80°C保存, 可以保存更长时间。

### 注意事项:

- 由于蛋白的每次冻融均会引起部分失活, 所以首次配制成相应浓度的储存液后, 须分装后-20°C或更低温度冻存, 尽量避免反复冻融。
- 本产品仅限于专业人员的科学研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

### 使用说明:

1. 收到产品后请立即按照说明书推荐的条件保存。在打开管盖前, 请适当离心, 使附着在管盖或管壁上的蛋白聚集于管底。

2. 具体的最佳工作浓度请自行参考相关文献，或者根据实验目的，以及特定细胞和动物，通过实验进行摸索和优化。

**参考文献：**

1. Xu L, Qi J, Zhao P, Liang X, Ju Y, et al. J Leukoc Biol. 2010. 88(2):329-36.
2. Yoshida T, Hanayama R. Methods Mol Biol. 2022. 2466:23-36.

**相关产品：**

产品编号	产品名称	包装
C4007-100μl	Lenti-CMV-CD9-EGFP (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl
C4007-500μl	Lenti-CMV-CD9-EGFP (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl×5
C4009-100μl	Lenti-CMV-CD9-mCherry (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl
C4009-500μl	Lenti-CMV-CD9-mCherry (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl×5
C4011-100μl	Lenti-CMV-CD63-EGFP (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl
C4011-500μl	Lenti-CMV-CD63-EGFP (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl×5
C4013-100μl	Lenti-CMV-CD63-mCherry (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl
C4013-500μl	Lenti-CMV-CD63-mCherry (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl×5
C4015-100μl	Lenti-CMV-CD81-EGFP (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl
C4015-500μl	Lenti-CMV-CD81-EGFP (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl×5
C4017-100μl	Lenti-CMV-CD81-mCherry (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl
C4017-500μl	Lenti-CMV-CD81-mCherry (10 <sup>9</sup> TU/ml,外泌体示踪用)	100μl×5
D2831-1μg	pCMV-CD81-EGFP (外泌体示踪用)	1μg
D2831-100μg	pCMV-CD81-EGFP (外泌体示踪用)	100μg
D2833-1μg	pCMV-CD81-mCherry (外泌体示踪用)	1μg
D2833-100μg	pCMV-CD81-mCherry (外泌体示踪用)	100μg
D2835-1μg	pCMV-CD9-EGFP (外泌体示踪用)	1μg
D2835-100μg	pCMV-CD9-EGFP (外泌体示踪用)	100μg
D2837-1μg	pCMV-CD9-mCherry (外泌体示踪用)	1μg
D2837-100μg	pCMV-CD9-mCherry (外泌体示踪用)	100μg
D2839-1μg	pCMV-CD63-EGFP (外泌体示踪用)	1μg
D2839-100μg	pCMV-CD63-EGFP (外泌体示踪用)	100μg
D2841-1μg	pCMV-CD63-mCherry (外泌体示踪用)	1μg
D2841-100μg	pCMV-CD63-mCherry (外泌体示踪用)	100μg
P0371S	生物素定量检测试剂盒(显色法)	100次
P0371M	生物素定量检测试剂盒(显色法)	500次
P0373S	生物素定量检测试剂盒(荧光法)	100次
P0373M	生物素定量检测试剂盒(荧光法)	500次
P0630S	Avi标签蛋白生物素标记试剂盒(BirA法)	20次
P0630M	Avi标签蛋白生物素标记试剂盒(BirA法)	100次
P0630L	Avi标签蛋白生物素标记试剂盒(BirA法)	500次
P2151-200μl	BeyoMag™ Streptavidin Magnetic Beads (链霉亲和素磁珠)	200μl
P2151-1ml	BeyoMag™ Streptavidin Magnetic Beads (链霉亲和素磁珠)	1ml
P2151-5ml	BeyoMag™ Streptavidin Magnetic Beads (链霉亲和素磁珠)	5ml
P4301-10μg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	10μg
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P4301-200μg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	200μg
P4301-1mg	Recombinant Biotinylated Human TIM4 (Avi-Tag)	1mg
P4303-10μg	Recombinant Human TIM4 (His-Tag)	10μg
P4303-50μg	Recombinant Human TIM4 (His-Tag)	50μg
P4303-200μg	Recombinant Human TIM4 (His-Tag)	200μg
P4303-1mg	Recombinant Human TIM4 (His-Tag)	1mg