



# Rat Anti-Mouse CD103 Monoclonal antibody, clone M290 (CABT-L4368)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

The M290 monoclonal antibody reacts with mouse CD103 also known as integrin  $\alpha$ E (ITGAE). CD103 is an integrin protein that binds integrin beta 7 to form the complete heterodimeric integrin molecule  $\alpha$ E $\beta$ 7. CD103 is expressed widely on intraepithelial lymphocyte (IEL) T cells (both  $\alpha$  $\beta$  T cells and  $\gamma$  $\delta$  T cells) and on some peripheral regulatory T cells. It has also been reported on lamina propria T cells. A subset of dendritic cells in the gut mucosa and in mesenteric lymph nodes also expresses CD103. The main ligand for CD103 is E-cadherin, an adhesion molecule expressed by epithelial cells. CD103 is thought to facilitate the interactions of T cells with epithelial cells during T cell maturation and effector functions. The M290 antibody is reported to neutralize CD103 in vivo.

Target	Mouse CD103
Immunogen	Mouse intestinal epithelial cells
Isotype	IgG2a, $\kappa$
Source/Host	Rat
Species Reactivity	Mouse
Clone	M290
Purification	Protein G purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade
Applications	in vivo CD103 neutralization, IF, FC
Molecular Weight	150 kDa

<b>Format</b>	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility
<b>Concentration</b>	Lot specific
<b>Size</b>	5 mg
<b>Buffer</b>	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]  Endotoxin level: <2EU/mg (<0.002EU/µg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB04
<b>Preservative</b>	None
<b>Storage</b>	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes an I-domain-containing alpha integrin that undergoes post-translational cleavage in the extracellular domain, yielding disulfide-linked heavy and light chains. In combination with the beta 7 integrin, this protein forms the E-cadherin binding integrin known as the human mucosal lymphocyte-1 antigen. This protein is preferentially expressed in human intestinal intraepithelial lymphocytes (IEL), and in addition to a role in adhesion, it may serve as an accessory molecule for IEL activation. [provided by RefSeq, Jul 2008]
<b>Keywords</b>	ITGAE;integrin, alpha E (antigen CD103, human mucosal lymphocyte antigen 1;alpha polypeptide);CD103;HUMINAE;integrin alpha-E;HML-1 antigen;integrin alpha-IEL;mucosal lymphocyte 1 antigen;antigen CD103, human mucosal lymphocyte antigen 1;alpha polypeptide;

## GENE INFORMATION

<b>Official Symbol</b>	integrin, alpha E (antigen CD103, human mucosal lymphocyte antigen 1; alpha polypeptide)
<b>Synonyms</b>	ITGAE; integrin, alpha E (antigen CD103, human mucosal lymphocyte antigen 1; alpha polypeptide); CD103; HUMINAE; integrin alpha-E; HML-1 antigen; integrin alpha-IEL; mucosal lymphocyte 1 antigen; antigen CD103, human mucosal lymphocyte antigen 1; alpha polypeptide;
<b>References</b>	Mang, Y., et al. (2015). "Efficient elimination of CD103-expressing cells by anti-CD103 antibody drug conjugates in immunocompetent mice." Int Immunopharmacol 24(1): 119-127. PubMed;