



# Rat Anti-Mouse CD29 Monoclonal antibody, clone KMI6 (CABT-L4342)

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

## PRODUCT INFORMATION

**Product Overview** The KMI6 monoclonal antibody reacts with mouse CD29 also known as integrin  $\beta 1$ , a 120-130 kDa member of the  $\beta$  integrin family. CD29 is expressed by leukocytes, endothelial, smooth muscle and epithelial cells. CD29 non-covalently associates with integrin  $\alpha 1$ - $\alpha 6$  to form the VLA-1 through VLA-6 complexes. These  $\alpha \beta$  integrin heterodimers are involved in adhesion, trafficking, proliferation and differentiation and bind to cell surface and extracellular matrix proteins including VCAM-1 and MadCAM-1.

<b>Target</b>	Mouse CD29
<b>Immunogen</b>	C57BL/6 x DBA/2 mouse bone-marrow stromal cell clone BMS2
<b>Isotype</b>	IgG2a, $\kappa$
<b>Source/Host</b>	Rat
<b>Species Reactivity</b>	Mouse
<b>Clone</b>	KMI6
<b>Purification</b>	Protein G purified. Purity>95%. Determined by SDS-PAGE
<b>Conjugate</b>	Functional Grade
<b>Applications</b>	IF, FC
<b>Molecular Weight</b>	150 kDa
<b>Format</b>	0.2 $\mu$ M 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>	This gene encodes a transmembrane receptor and is often referred to as L-SIGN because of its expression in the endothelial cells of the lymph nodes and liver. The encoded protein is involved in the innate immune system and recognizes numerous evolutionarily divergent pathogens ranging from parasites to viruses, with a large impact on public health. The protein is organized into three distinct domains: an N-terminal transmembrane domain, a tandem-repeat neck domain and C-type lectin carbohydrate recognition domain. The extracellular region consisting of the C-type lectin and neck domains has a dual function as a pathogen recognition receptor and a cell adhesion receptor by binding carbohydrate ligands on the surface of microbes and endogenous cells. The neck region is important for homo-oligomerization which allows the receptor to bind multivalent ligands with high avidity. Variations in the number of 23 amino acid repeats in the neck domain of this protein are common and have a significant impact on ligand binding ability. This gene is closely related in terms of both sequence and function to a neighboring gene (GeneID 30835; often referred to as DC-SIGN or CD209). DC-SIGN and L-SIGN differ in their ligand-binding properties and distribution. Alternative splicing results in multiple variants.[provided by RefSeq, Feb 2009]
<b>Keywords</b>	CLEC4M;C-type lectin domain family 4, member M;CD299;LSIGN;CD209L;L-SIGN;DCSIGNR;HP10347;DC-SIGN2;DC-SIGNR

## GENE INFORMATION

<b>Official Symbol</b>	C-type lectin domain family 4, member M
<b>Synonyms</b>	CLEC4M; C-type lectin domain family 4, member M; CD299; LSIGN; CD209L; L-SIGN; DCSIGNR; HP10347; DC-SIGN2; DC-SIGNR