abcam

ab80680

Anti-MAdCAM1 antibody [AP-MAB0842]

Key facts

Isotype	IgG2
Host species	Rat
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Madcam1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q61826
Carrier free	Yes
Clone number	AP-MAB0842
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	The IgG fraction of culture supernatant was purified by Protein Aaffinity chromatography.

Reactivity data

IP

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.

Notes	-

Flow Cyt

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

FuncS (Neut/Block)

Expected

Species	Mouse
Dilution info	-
Notes	ab80680 is useful for blocking the interaction of MAdCAM1 with its counter receptor.

IHC-Fr

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Madcam1

Function	Cell adhesion leukocyte receptor expressed by mucosal venules, helps to direct lymphocyte traffic into mucosal tissues including the Peyer patches and the intestinal lamina propria. It can bind both the integrin alpha-4/beta-7 and L-selectin, regulating both the passage and retention of leukocytes. Both isoform 1 and isoform 2 can adhere to integrin alpha-4/beta-7. Isoform 2, lacking the mucin-like domain, may be specialized in supporting integrin alpha-4/beta-7-dependent adhesion strengthening, independent of L-selectin binding.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Endotoxin Level: Extremely low level of LPS (< 0.002EU/µg IgG).
ab80680 was produced by *in vitro* culture, from a hybridoma (mouse myeloma fused with spleen cells from an immunized rat).

ab80680 is useful for reducing T cell mediated inflammation in gastrointestinal diseases.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	MAdCAM-1 also known as mucosal addressin cell adhesion molecule 1 or mucosal tag is a protein with a molecular mass of approximately 60 kDa. The MAdCAM-1 protein is expressed prominently on high endothelial venules within mucosal tissues such as the gut and the colon. Additionally it also appears in the endothelial cells of lymphoid tissues. Another name for it is MECA-79 highlighting its recognition by the MECA-79 antibody. Mucosal tags label regions where MAdCAM-1 assists in cell adhesion processes.
Biological function summary	MAdCAM-1 facilitates lymphocyte homing to mucosal tissues. It plays a part in the adhesive interactions between endothelial cells and lymphocytes as a component of the immune surveillance system enabling T cells and B cells to move into areas where they are needed. MAdCAM-1 forms complexes with integrins notably alpha4beta7 which are integral to its adhesion functions. Through its role in

	guiding lymphocytes it influences immune response and inflammation in mucosal environments.
Pathways	MAdCAM-1 contributes importantly to the trafficking of immune cells. It is involved in the regulation of cell adhesion and migration pathways. The protein interacts extensively with the integrin family especially integrin alpha4beta7 which facilitates lymphocyte entry into the intestinal wall. Additionally it works with chemokine receptors and cytokines that further influence cell movement and homing to specific tissues. This integrative role reinforces its importance in immune response and mucosal immunity.
Associated diseases and disorders	MAdCAM-1 links closely to inflammatory diseases such as Crohn's disease and ulcerative colitis. Its expression is upregulated in these inflammatory conditions which leads to increased lymphocyte accumulation in the gut. This condition exacerbates the inflammation and tissue damage characteristic of these disorders. MECA-79 a monoclonal antibody targets MAdCAM-1 to aid therapeutic approaches in mitigating inflammation driven by lymphocyte infiltration. Understanding MAdCAM-1 and its function offers potential pathways to target and treat these chronic inflammatory diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

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