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TMIGD2 Antibody

Catalog # ASC11740

Product Information

Application	WB, E, IHC-P
Primary Accession	Q96BF3
Other Accession	NP_653216, 281306838
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	30675
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TMIGD2 antibody can be used for detection of TMIGD2 by Western blot at 1 - 2 g/ml. Antibody can also be used for Immunohistochemistry starting at 5 g/mL.

Additional Information

Gene ID	126259
Other Names	Transmembrane and immunoglobulin domain-containing protein 2, CD28 homolog, Immunoglobulin and proline-rich receptor 1, IGPR-1, TMIGD2, CD28H, IGPR1
Target/Specificity	TMIGD2; TMIGD2 antibody is human and mouse reactive. At least three isoforms of TMIGD2 are known to exist; this antibody will detect all three. TMIGD2 antibody is predicted to not cross-react with TMIGD1.
Reconstitution & Storage	TMIGD2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	TMIGD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TMIGD2
Synonyms	CD28H, IGPR1
Function	Plays a role in cell-cell interaction, cell migration, and angiogenesis. Through interaction with HHLA2, costimulates T-cells in the context of TCR-mediated activation. Enhances T-cell proliferation and cytokine production via an AKT-dependent signaling cascade.
Cellular Location	Cell membrane; Single-pass type I membrane protein

Tissue Location	Widely expressed, mainly by epithelial and endothelial cells, including bronchial epithelial cells of lung, breast glandular and lobular epithelia cells, urothelium of the bladder, skin epidermis, epithelium of gastrointestinal, rectum, endometrial glands of the uterus, ureter, fallopian tube epithelium, colonic epithelium, small bowl epithelium, stomach epithelium, including both chief and parietal cells, trophoblastic epithelium of placenta, and pancreatic acinar cells (at protein level). Consistently expressed in veins and arteries (at protein level). Not detected in thyroid, cerebellum, cerebral cortex and thymus (at protein level). Expressed in lymphoid organs, with highest levels in thymus, spleen, peripheral blood lymphocytes and liver. In the thymus, expressed in CD4+ and CD8+ single- and double-positive cells, but not in immature CD4- and CD8- double-negative cells (at protein level). In peripheral blood mononuclear cells, highly expressed on CD56+ or CD16+ natural killer cells and CD3+ T-cells(at protein level). Not detected on B-cells(at protein level). Expressed in tonsils (at protein level)

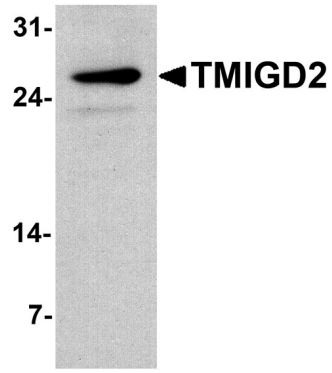
Background

TMIGD2 (transmembrane and immunoglobulin domain containing 1), also known as immunoglobulin-containing and proline-rich receptor 1 (IGPR1), is novel adhesion molecule that is expressed in multiple tissues, primarily in cells of epithelium and endothelium origins (1). TMIGD2 is thought to be involved in angiogenesis and regulates cellular morphology, homophilic cell aggregation, and cell-cell interaction. TMIGD2 activity also modulates actin stress fiber formation and focal adhesion and reduces cell migration (1).

References

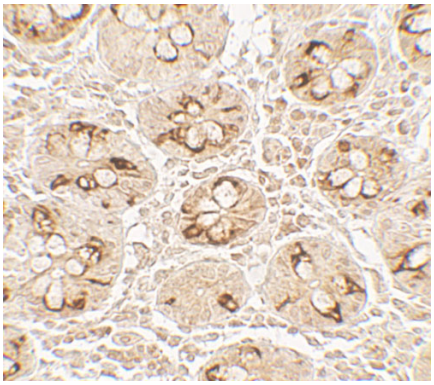
Rahimi N, Rezazadeh K, Mahoney JE, et al. Identification of IGPR-1 as a novel adhesion molecule involved in angiogenesis. Mol. Biol. Cell 2012; 23:1646-56.

Images



Western blot analysis of TMIGD2 in mouse small intestine tissue lysate with TMIGD2 antibody at 1 µg/ml.

Immunohistochemistry of TMIGD2 in human small intestine tissue with TMIGD2 antibody at 5 µg/mL.



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