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GPR183 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55600

Product Information

Application	WB, E
Primary Accession	P32249
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41224
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EBV Induced Gene 2
Epitope Specificity	201-300/361
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Epstein-Barr virus-induced gene 2 is a 357 amino acid multi pass membrane protein. It is expressed in B-lymphocytes and lymphoid tissues and may function in the modulation of the immune system. Out of the nine genes that are induced by the Epstein-Barr virus, Ebi2 exhibits the highest levels of up-regulation. Ebi2 is a G-protein coupled receptor that signals through the G-protein G錳. Ebi2 contains seven hydrophobic transmembrane regions and a putative N-linked glycosylation site at its extracellular N-terminus. Ebi2 is believed to be involved in regulating the effects of the Epstein-Barr virus on B-lymphocytes. In addition, Ebi2 may play a role mediating normal lymphocyte functions.

Additional Information

Gene ID	1880
Other Names	G-protein coupled receptor 183, Epstein-Barr virus-induced G-protein coupled receptor 2, EBI2, EBV-induced G-protein coupled receptor 2, hEBI2, GPR183 (HGNC:3128)
Target/Specificity	Expressed abundantly in lymphoid tissues such as spleen and lymph node, and in B- and T-lymphocytes. Also highly expressed in lung, heart and gastrointestinal tract, and weakly expressed in the urogenital system and brain.
Dilution	WB=1:500-2000,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	GPR183 (HGNC:3128)
Function	G-protein coupled receptor expressed in lymphocytes that acts as a chemotactic receptor for B-cells, T-cells, splenic dendritic cells, monocytes/macrophages and astrocytes (By similarity). Receptor for oxysterol 7-alpha,25-dihydroxycholesterol (7-alpha,25-OHC) and other related oxysterols (PubMed:21796212, PubMed:22875855, PubMed:22930711). Mediates cell positioning and movement of a number of cells by binding the 7-alpha,25-OHC ligand that forms a chemotactic gradient (By similarity). Binding of 7-alpha,25-OHC mediates the correct localization of B-cells during humoral immune responses (By similarity). Guides B-cell movement along the B-cell zone-T-cell zone boundary and later to interfollicular and outer follicular regions (By similarity). Its specific expression during B-cell maturation helps position B-cells appropriately for mounting T-dependent antibody responses (By similarity). Collaborates with CXCR5 to mediate B-cell migration; probably by forming a heterodimer with CXCR5 that affects the interaction between of CXCL13 and CXCR5 (PubMed:22913878). Also acts as a chemotactic receptor for some T-cells upon binding to 7- alpha,25-OHC ligand (By similarity). Promotes follicular helper T (Tfh) cells differentiation by positioning activated T-cells at the follicle- T-zone interface, promoting contact of newly activated CD4 T-cells with activated dendritic cells and exposing them to Tfh-cell-promoting inducible costimulator (ICOS) ligand (By similarity). Expression in splenic dendritic cells is required for their homeostasis, localization and ability to induce B- and T-cell responses: GPR183 acts as a chemotactic receptor in dendritic cells that mediates the accumulation of CD4(+) dendritic cells in bridging channels (By similarity). Regulates migration of astrocytes and is involved in communication between astrocytes and macrophages (PubMed:25297897). Promotes osteoclast precursor migration to bone surfaces (By similarity). Signals constitutively through G(i)-alpha, but not G(s)-alpha or G(q)- alpha (PubMed:21673108, PubMed:25297897). Signals constitutively also via MAPK1/3 (ERK1/2) (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed abundantly in lymphoid tissues such as spleen and lymph node, and in B- and T-lymphocytes (PubMed:16540462, PubMed:8383238). Also highly expressed in lung, heart and gastrointestinal tract, and weakly expressed in the urogenital system and brain (PubMed:16540462, PubMed:8383238). Expressed in astrocytes (PubMed:25297897).