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CCBP2 Rabbit pAb

Catalog # AP99326

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O00590
Other Accession	O00590
Predicted	Rat, Human, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43443
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CCBP2
Epitope Specificity	201-300/384
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
Post-translational modifications	Phosphorylated on serine residues in the C-terminal cytoplasmic tail.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Chemokine Receptor D6 is a member of the C-C (β chemokine) G protein-coupled receptor family. This family is characterized by a pair of adjacent cysteine residues. C-C chemokine receptor family members also include CKR-1, CKR-2A, CKR-2B, CKR-3, CKR-4, CKR-5, CKR-6, CKR-7, CKR-8, CKR-9, CKR-10, CCXCKR, Bonzo, BOB (brother of Bonzo) and Duffy blood group antigen. Each of these receptors are G protein-coupled, seven pass transmembrane domain proteins whose major physiological role is to function in the chemotaxis of T cells and phagocytic cells to sites of inflammation. Chemokine Receptor D6 acts as a receptor for various C-C type chemokines, including SCYA2/MCP-1, SCY3/MIP-1-α, SCYA5/RANTES and SCYA7/MCP-3. It is expressed primarily in placental tissues and fetal liver, but is also detected in lymphatic endothelial cells, lymph nodes and mucosa of the small and large intestines.

Additional Information

Gene ID	1238
Other Names	CCBP2; CCR10; CCR9; CMKBR9; D6; hD6; ACKR2_HUMAN; ACKR2; C-C chemokine receptor D6; Chemokine receptor CCR-10; Chemokine receptor CCR-9; Chemokine-binding protein 2; Chemokine-binding protein D6; atypical chemokine receptor 2; chemokine binding protein 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

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	ACKR2
Synonyms	CCBP2, CCR10, CMKBR9, D6
Function	Atypical chemokine receptor that controls chemokine levels and localization via high-affinity chemokine binding that is uncoupled from classic ligand-driven signal transduction cascades, resulting instead in chemokine sequestration, degradation, or transcytosis (PubMed:18201974, PubMed:20373092, PubMed:23479571). Also known as interceptor (internalizing receptor) or chemokine-scavenging receptor or chemokine decoy receptor (PubMed:18201974, PubMed:20373092, PubMed:23479571). Acts as a receptor for chemokines including CCL2, CCL3, CCL3L1, CCL4, CCL5, CCL7, CCL8, CCL11, CCL13, CCL17, CCL22, CCL23, CCL24, SCYA2/MCP-1, SCY3/MIP-1-alpha, SCYA5/RANTES and SCYA7/MCP-3 (PubMed:18201974, PubMed:20373092, PubMed:23479571). Upon active ligand stimulation, activates a beta-arrestin 1 (ARRB1)- dependent, G protein-independent signaling pathway that results in the phosphorylation of the actin-binding protein cofilin (CFL1) through a RAC1-PAK1-LIMK1 signaling pathway (PubMed:23633677). Activation of this pathway results in up-regulation of ACKR2 from endosomal compartment to cell membrane, increasing its efficiency in chemokine uptake and degradation (PubMed:23633677). By scavenging chemokines in tissues, on the surfaces of lymphatic vessels, and in placenta, plays an essential role in the resolution (termination) of the inflammatory response and in the regulation of adaptive immune responses (PubMed:23479571). Plays a major role in the immune silencing of macrophages during the resolution of inflammation (By similarity). Acts as a regulator of inflammatory leukocyte interactions with lymphatic endothelial cells (LECs) and is required for immature/mature dendritic cells discrimination by LECs (PubMed:23479571).
Cellular Location	Early endosome. Recycling endosome. Cell membrane; Multi-pass membrane protein. Note=Predominantly localizes to endocytic vesicles, and upon stimulation by the ligand is internalized via clathrin-coated pits (PubMed:18201974). Once internalized, the ligand dissociates from the receptor, and is targeted to degradation while the receptor is recycled back to the cell membrane (PubMed:18201974).
Tissue Location	Found in endothelial cells lining afferent lymphatics in dermis and lymph nodes. Also found in lymph nodes subcapsular and medullary sinuses, tonsillar lymphatic sinuses and lymphatics in mucosa and submucosa of small and large intestine and appendix. Also found in some malignant vascular tumors. Expressed at high levels in Kaposi sarcoma-related pathologies. Expressed on apoptotic neutrophils (at protein level). Expressed primarily in placenta and fetal liver, and found at very low levels in the lung and lymph node.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.