

Product datasheet for TA328617

C5R1 (C5AR1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DKDTLNLNTPVDK, corresponding to amino acid residues 16-28 of human C5aR (Accession P21730). Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	complement component 5a receptor 1
Database Link:	NP_001727 Entrez Gene 728 Human P21730

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Background:

The innate immune system identifies pathogens by recognizing known elements. This response ultimately leads to the production of proinflammatory substances and the activation of phagocytic neutrophils and macrophages. Activation of the complement system is an important initial even in the response against pathogens. This system includes some thirty different proteins that act together to form a complex. C5a is one of the most potent inflammatory peptides generated by complement activation. This peptide has many functions such as acting as a chemoattractant for neutrophils. C5a acts as a vasodilator and activates the coagulation pathway just to name a few. C5a exerts its numerous actions by binding to C5aR and C5L2. C5aR belongs to the superfamily of G-protein coupled receptors (GPCRs). Like all members, C5aR has seven transmembrane domains, an extracellular N-terminus and an intracellular C-terminal tail. C5aR can form homodimers or heteromer with CCR5, chemokine receptor, for example. Activation of C5aR by C5a binding causes Ca^{2+} mobilization. C5aR expression is detected in neutrophils, eosinophils, basophils and monocytes. The receptor is also expressed in lung and liver. Blocking C5aR by peptides or organic small molecules is in the pipeline for treating chronic inflammatory disorders/diseases like arthritis, inflammatory bowel disease and lung/liver injuries.

Synonyms:

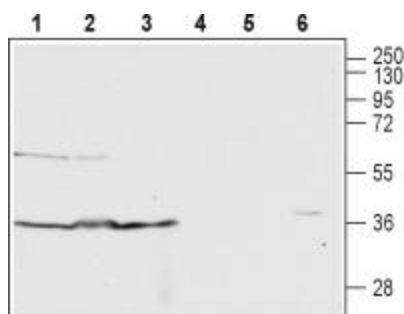
C5A; C5AR; C5R1; CD88

Protein Families:

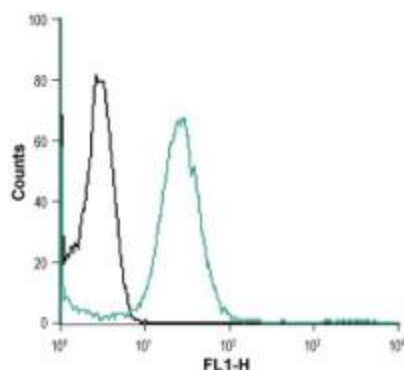
Druggable Genome, GPCR, Transmembrane

Protein Pathways:

Complement and coagulation cascades, Neuroactive ligand-receptor interaction

Product images:


Western blot analysis of K562 (lanes 1 and 4), MEG-01 (lanes 2 and 5) and THP-1 (lanes 3 and 6) cell lysates: 1-3. Anti-C5a Anaphylatoxin Receptor (extracellular) antibody, (1:200). 4-6. Anti-C5a Anaphylatoxin Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Indirect flow cytometry analysis of HL-60 intact living cells: black line: Unstained cells. Green line: Cells + Anti-C5a Anaphylatoxin Receptor (extracellular) antibody, (10 ug/1x10⁶ cells).