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[Marker Primary Antibody]

Rabbit Anti-C3a Receptor/AF647 Conjugated antibody

Catalog Number: SL2955R-AF647

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-C3a Receptor/AF647
Immunogen:	KLH conjugated synthetic peptide derived from human C3a Receptor/C3aR
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat,Horse,Rabbit)
Background:	background: Complement C3 precursor contains complement C3 beta chain, complement C3 alpha chain, C3a anaphylatoxin, complement C3b alpha chain, complement C3c fragment, complement C3dg fragment, complement C3g fragment, complement C3d fragment and complement C3f fragment. C3a, C4a, and C5a are potent anaphylatoxins that are released during complement activation, a system of ligand-surface protein interactions specific to cells of hematopoietic lineage that aids in the elimination of pathogens. C3a and C5a secretion correlates with pathophysiological phenotypes such as asthma and bacterial meningitis. Binding of these proteins to their respective G protein-coupled receptors (C3aR, C5aR), which are present on the surface of myeloid leukocytes, induces proinflammatory events such as cellular degranulation, smooth muscle contraction, arachidonic acid metabolism, cytokine release, leukocyte activation and cellular chemotaxis. C3aR is expressed in brain and activated B-lymphocytes whereas C5aR is prevalent on the surface of hepatocyte, lung,

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	smooth muscle, and endothelial cells. Upon activation, C3aR and C5aR are susceptible to rapid GRK-mediated phosphorylation and clathrin-coated vesicle targeting. C5aR utilizes the Ras-Raf-ERK1/2 cascade and couples to Gi/G16 proteins. **Function:** Receptor for the chemotactic and inflammatory peptide anaphylatoxin C3a. This receptor stimulates chemotaxis, granule enzyme release and superoxide anion production. **Subcellular Location:** Cell membrane; Multi-pass membrane protein. **Tissue Specificity:** Widely expressed in several differentiated hematopoietic cell lines, in the lung, spleen, ovary, placenta, small intestine, throughout the brain, heart, and endothelial cells. Mostly expressed in lymphoid tissues. **Post-translational modifications:** Among the sulfation sites Tyr-174 is essential for binding of C3a anaphylatoxin. **Similarity:** Belongs to the G-protein coupled receptor 1 family. **Database links:** **Entrez Gene:** 719 Human **Entrez Gene:** 12267 Mouse **Entrez Gene:** 84007 Rat Omim: 605246 Human **SwissProt:** Q16581 Human **SwissProt:** O09047 Mouse **SwissProt:** O55197 Rat **Unigene:** 591148 Human **Unigene:** 2408 Mouse **Unigene:** 9772 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.