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C3a Receptor Rabbit pAb

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Catalog # AP58066

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q16581
Reactivity	Human, Mouse
Predicted	Rat, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53864
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human C3a Receptor/C3aR
Epitope Specificity	401-482/482
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; Multi-pass membrane protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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, 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.

Additional Information

Gene ID	719
Other Names	C3a anaphylatoxin chemotactic receptor, C3AR, C3a-R, C3AR1 {ECO:0000303|PubMed:37169960, ECO:0000312|HGNC:HGNC:1319}

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

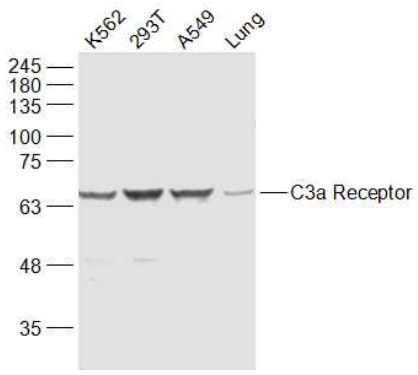
Protein Information

Name	C3AR1 {ECO:0000303|PubMed:37169960, ECO:0000312|HGNC:HGNC:1319}
Function	Receptor for the chemotactic and inflammatory peptide anaphylatoxin C3a, stimulating chemotaxis, granule enzyme release and superoxide anion production (PubMed:12871936, PubMed:37852260, PubMed:8702752). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (PubMed:37852260). C3AR1 is coupled to G(i)/G(o) (GNAI1 or GNAO1) G alpha proteins and mediates inhibition of adenylate cyclase (PubMed:37852260).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Widely expressed in several differentiated hematopoietic cell lines, in the lung, spleen, ovary, placenta, small intestine, throughout the brain, heart, and endothelial cells (PubMed:8605247, PubMed:8765043, Ref.3). Mostly expressed in lymphoid tissues (PubMed:8605247, PubMed:8765043, Ref.3) {ECO:0000269|PubMed:8605247, ECO:0000269|PubMed:8765043, ECO:0000269|Ref.3}

Background

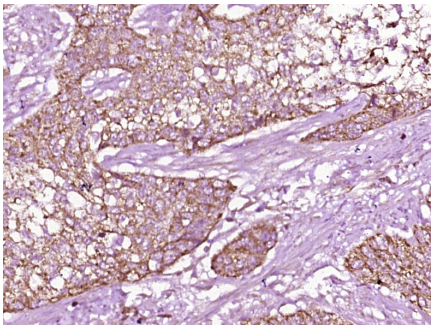
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Images



Sample:
K562(Human) Cell Lysate at 30 ug
293T(Human) Cell Lysate at 30 ug
A549(Human) Cell Lysate at 30 ug
Lung (Mouse) Lysate at 40 ug
Primary: Anti-C3a Receptor (AP58066) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 54 kD
Observed band size: 64 kD

Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (C3a Receptor) Polyclonal Antibody, Unconjugated (AP58066) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit)



(sp-0023) instructionsand DAB staining.

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