

C3a Receptor Rabbit pAb

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Product Information

Application WB, IHC-P, IHC-F, IF

Primary Accession Q16581

Reactivity Human, Horse **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

401-482/482 **Epitope Specificity**

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. **SIMILARITY** Belongs to the G-protein coupled receptor 1 family.

Among the sulfation sites Tyr-174 is essential for binding of C3a Post-translational

anaphylatoxin. modifications

This product as supplied is intended for research use only, not for use in **Important Note**

human, therapeutic or diagnostic applications.

Complement C3 precursor contains complement C3 beta chain, complement **Background Descriptions**

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, AZ3B, C3R1,

HNFAG09

Target/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.

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

Synonyms AZ3B, C3R1, HNFAG09

Function Receptor for the chemotactic and inflammatory peptide anaphylatoxin C3a.

This receptor stimulates chemotaxis, granule enzyme release and superoxide

anion production.

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. Mostly expressed in lymphoid tissues

Background

Complement C3 precursor contains complement C3 beta chain, complement C3 alpha chain, C3a anaphylatoxin, complement C3b alpha chain, complement C3c fragment, complement C3d fragment, complement C3d 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.

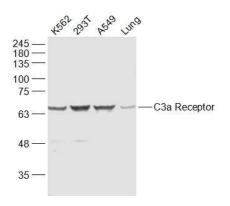
Images

Sample:

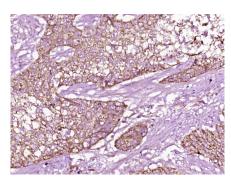
K562(Human) Cell Lysate at 30 ug 293T(Human) Cell Lysate at 30 ug A549(Human) Cell Lysate at 30 ug Lung (Mouse) Lysate at 40 ug

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'.