

### C3a Receptor Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP58066

### **Specification**

# C3a Receptor Polyclonal Antibody - Product Information

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

Primary Accession
Reactivity
Rat
Host
Clonality
Calculated MW

O16581
Rat
Rabbit
Polyclonal
54 KDa

Physical State
Liquid
Immunogen
KLH conjugated synthetic peptide derived

from human C3a Receptor/C3aR

Epitope Specificity 401-482/482

Isotype IgG

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.

Post-translational modifications Among the sulfation sites Tyr-174 is

essential for binding of C3a

anaphylatoxin.

Important Note This product as supplied is intended for

research use only, not for use in human, therapeutic or diagnostic applications.

### **Background Descriptions**

affinity purified by Protein A

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.

### C3a Receptor Polyclonal Antibody - 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**

<span class ="dilution\_WB">WB~~1:1000</span><br \> <span class
="dilution\_IHC-P">IHC-P~~N/A</span><br \> <span class
="dilution\_IHC-F">IHC-F~~N/A</span><br \> <span class
="dilution\_IF">IF~~1:50~200</span><br \> <span class ="dilution\_E">E~~N/A</span>

### 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.

### C3a Receptor Polyclonal Antibody - 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

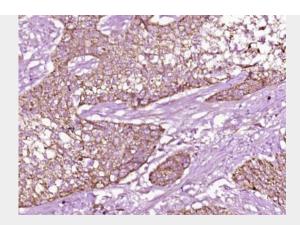
# C3a Receptor Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

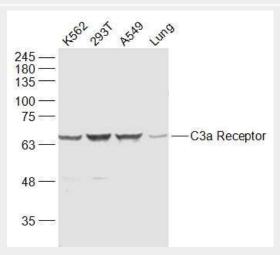
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# C3a Receptor Polyclonal Antibody - Images





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 (bs-2955R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



# Sample:

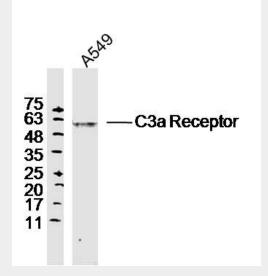
K562(Human) Cell Lysate at 30 ug 293T(Human) Cell Lysate at 30 ug A549(Human) Cell Lysate at 30 ug Lung (Mouse) Lysate at 40 ug

Primary: Anti-C3a Receptor (bs-2955R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54 kD Observed band size: 64 kD



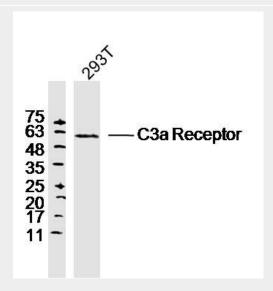


Sample: A549 Cell (Human) Lysate at 30 ug

Primary: Anti-C3a Receptor (bs-2955R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54kD Observed band size: 60kD



Sample: 293T Cell (Human) Lysate at 30 ug

Primary: Anti-C3a Receptor (bs-2955R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54kD Observed band size: 60kD