

# Produktinformation



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# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

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### Anti-Rat C3a Receptor **Monoclonal Antibody**

Catalogue#	Format	Size	Concentration	Isotype Control
CL031AP	Purified	250 µg	1.0 mg/ml	CLCMG100
CL031B	Biotin	100 µg	0.1 mg/ml	CLCMG115
CL031F	FITC	100 µg	0.1 mg/ml	CLCMG101
CL031PE	PE	50 µg	0.1 mg/ml	CLCMG104

Isotype: Mouse  $IgG_1$ 

#### **DESCRIPTION:**

C3aR binds to anaphylotoxin C3a which, among other things, is involved in mast cell degranulation and recruitment of immune cells to the site of inflammation. Activation of the complement cascade produces various fragments, including C3a and C5a.

C3aR is characterized by seven transmembrane domains including a large extracellular loop which is coupled to a Gi protein. C3aR expression is detected on glial cells, neurons and cells belonging to the mononuclear phagocyte system. C3aR expression was shown to moderately increase after LPS stimulation.

Cedarlane's rat C3a receptor antibody detects a recombinant peptide corresponding to amino acids 161-321 of the large extracellular loop structure, which shares 34% homology with mouse and human. Deduced amino acid sequences of human/rat C3aR is 58.5% and 90.7% with rat/mouse.

This clone is suitable for use in flow cytometry and in IHC with frozen tissue sections.

#### **PRESENTATION:**

Purified: Purified IgG buffered in PBS and 0.02% NaN<sub>3</sub>. (Purified from ascitic fluid via Protein G Chromatography).

Biotin, FITC and PE: Biotin/FITC/PE conjugated IgG buffered in PBS, 0.02% NaN<sub>3</sub> and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/mL.

#### **STORAGE/STABILITY:**

For all formats, store at 4°C. DO NOT FREEZE PE conjugates. For long term storage (Purified, Biotin, FITC), aliquot and freeze unused portion at -20°C in volumes appropriate for single usage. Avoid freeze/thaw cycles.

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#### **SPECIFICATIONS:**

Clone: 74 (formerly rC3aRZ1)

Hybridoma Production:

Immunization: Immunogen: RBL-2H3 transfectants expressing rat C3aR Donor: BALB/c

Fusion Partner: X63-Ag8.653

Specificity: Rat C3aR

#### **TEST RESULTS:**

Tissue Distribution by Flow Cytometry Analysis:

Rat Strain: Fischer Cell Concentration: 1x10<sup>6</sup> cells per tests Antibody Concentration Used: 2.0 µg/10<sup>6</sup> cells

<u>Cell Source</u> Peritoneal Macrophages Bone Marrow



Cell Source: Peritoneal Macrophages Percentage of cells stained above control: 97.2%

#### N.B. Appropriate control samples should always be included in any labeling studies.

\* For optimal results in various applications, it is recommended that each investigator determine dilutions appropriate for individual use.

#### **REFERENCES:**

- 1) Luhmann, A.E. et al. Immunohistochemical analysis of human and rat C3a receptor expression by the use of monoclonal antibodies. Molecular Immunology (Abstracts), 2001., 38:108.
- 2) Fukuoka, Y., et al. Cloning and characterization of rat C3a receptor: differential expression of rat C3a and C5a receptors by LPS stimulation. Biochem. And Biophys. Res. Comm. 1998, 242: 663.
- Francis, K., et al. Complement C3a receptors in the pituitary gland: a novel pathway by which an innate immune molecule releases hormones involved in the control of inflammation. The FASEB journal. 2003, 17: 2266.
- 4) Benard, M., et al. Characterization of C3a and C5a receptors in rat cerebellar granule neurons during maturation. J. Biol. Chem. 2004, 279 (42): 43487.

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