

C5L2 (E-8): sc-515734



The Power to Question

BACKGROUND

Anaphylatoxin, a chemotactic and inflammatory peptide, is a receptor for C5a anaphylatoxin chemotactic receptor (C5L2), also designated G protein-coupled receptor 77. C5L2 is an integral membrane protein that belongs to the G protein-coupled receptor 1 family. C5L2 weakly couples to G_i-mediated signaling pathways and is widely expressed in the hippocampus, hypothalamus, pons, frontal cortex and liver. It is coexpressed with the C5a receptor (C5AR) on polymorphonuclear neutrophils and may modulate the activity of C5AR. The function of the C5a receptors, particularly that of C5L2, is still unclear. Research suggests that C5L2 may be required for the *in vitro* release of high mobility group box 1 protein (HMGB1).

REFERENCES

- Cain, S.A. and Monk, P.N. 2002. The orphan receptor C5L2 has high affinity binding sites for complement fragments C5a and C5a des-Arg⁷⁴. *J. Biol. Chem.* 277: 7165-7169
- Okinaga, S., et al. 2003. C5L2, a nonsignaling C5A binding protein. *Biochemistry* 42: 9406-9415.
- Otto, M., et al. 2004. C5a mutants are potent antagonists of the C5a receptor (CD88) and of C5L2: position 69 is the locus that determines agonism or antagonism. *J. Biol. Chem.* 279: 142-151.
- Gavrilyuk, V., et al. 2005. Identification of complement 5a-like receptor (C5L2) from astrocytes: characterization of anti-inflammatory properties. *J. Neurochem.* 92: 1140-1149.
- Huber-Lang, M., et al. 2005. Changes in the novel orphan, C5a receptor (C5L2), during experimental sepsis and sepsis in humans. *J. Immunol.* 174: 1104-1110.

CHROMOSOMAL LOCATION

Genetic locus: C5AR2 (human) mapping to 19q13.32; C5ar2 (mouse) mapping to 7 A2.

SOURCE

C5L2 (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-26 within an extracellular domain of C5L2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

C5L2 (E-8) is available conjugated to agarose (sc-515734 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515734 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515734 PE), fluorescein (sc-515734 FITC), Alexa Fluor[®] 488 (sc-515734 AF488), Alexa Fluor[®] 546 (sc-515734 AF546), Alexa Fluor[®] 594 (sc-515734 AF594) or Alexa Fluor[®] 647 (sc-515734 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515734 AF680) or Alexa Fluor[®] 790 (sc-515734 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

C5L2 (E-8) is recommended for detection of C5L2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for C5L2 siRNA (h): sc-105165, C5L2 siRNA (m): sc-141918, C5L2 shRNA Plasmid (h): sc-105165-SH, C5L2 shRNA Plasmid (m): sc-141918-SH, C5L2 shRNA (h) Lentiviral Particles: sc-105165-V and C5L2 shRNA (m) Lentiviral Particles: sc-141918-V.

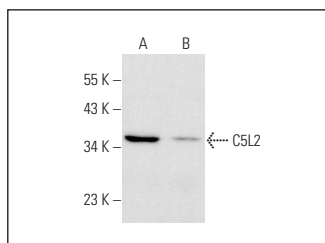
Molecular Weight of C5L2: 36 kDa.

Positive Controls: A549 cell lysate: sc-2413 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



C5L2 (E-8): sc-515734. Western blot analysis of C5L2 expression in A549 (A) and NIH/3T3 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Zhang, T., et al. 2020. The C5a/C5aR2 axis promotes renal inflammation and tissue damage. *JCI Insight* 5: e134081.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.