abcam

ab278055

Anti-GPCR C5L2 antibody [1D9-M12]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing C5AR2 protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q9P296
Clone number	1D9-M12
Purification technique	Affinity purification Protein A
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	2-6 µg/mL
Notes	-

Predicted

Species	Primates
Dilution info	-
Notes	-

Target data

See full target information C5AR2

Function

Receptor for the chemotactic and inflammatory peptide anaphylatoxin C5a, stimulating chemotaxis, granule enzyme release, intracellular calcium release and superoxide anion production (PubMed:11773063). Also acts as a receptor for dearginated forms of C3a, C4a and C5a anaphylatoxin peptides (ASP/C3adesArg, C4adesArg and C5adesArg, respectively) (PubMed:12540846, PubMed:15833747, PubMed:19615750). 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:12540846). C5AR1 is coupled to G(i)/G(o) (GNAI1 or GNAO1) G alpha proteins and mediates inhibition of adenylate cyclase (PubMed:12540846).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary

The G-protein-coupled receptor C5L2 also known as GPR77 is a member of the GPCR family a large group of cell surface receptors essential for signal

	transduction. It is a glycoprotein with a molecular mass of around 39 kDa. This receptor does not share typical signaling properties with classical GPCRs as it lacks G-protein activation function. Instead it acts as a decoy receptor. C5L2 is widely expressed in adipose tissue macrophages and other immune cells with an abundant presence in the lungs liver and spleen.
Biological function summary	C5L2 participates in immune response modulation lipid metabolism and inflammation resolution. This receptor does not operate as part of a known complex but plays a critical role in complement cascade regulation. It binds complement component C5a and its inactivated form C5a des-Arg which is a significant function distinguishing it from other receptors. C5L2 may act to sequester these components thereby limiting excessive inflammatory responses and sustaining homeostasis.
Pathways	This receptor is involved in the complement and the adipokine signaling pathways. C5L2 interacts within the complement system to mediate the immune response functioning alongside other components such as C5aR1. Its presence in the adipokine pathway suggests a role in energy metabolism hinting at the regulation of glucose and lipid homeostasis in adipose tissues and potentially engaging interactions with proteins like adiponectin.
Associated diseases and disorders	C5L2 associates with conditions like sepsis and metabolic syndrome. In sepsis C5L2's regulation of the complement pathway influences inflammatory responses and outcomes. The association of C5L2 with metabolic syndrome implicates its involvement in dysregulated adipokine signaling suggesting a direct relationship with proteins such as C5aR1 in these contexts. Understanding C5L2's function provides insights into therapeutic targets for these diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

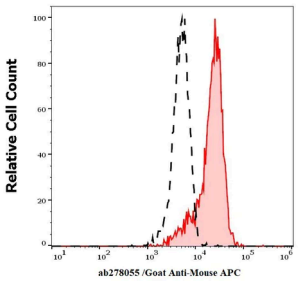
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

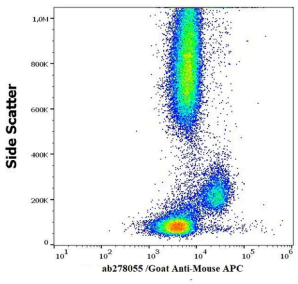
2 product images



Flow Cytometry - Anti-GPCR C5L2 antibody [1D9-M12] (ab278055)

GPCR C5L2 Flow Cytometry staining using mouse Anti-GPCR C5L2 antibody

Flow cytometric analysis of human peripheral whole blood monocytes labeling GPCR C5L2 using ab278055 at 5 µg/ml (Red) as compared to unstained cells (Black). The secondary antibody is a Goat Anti-Mouse APC conjugate. Surface staining.



Flow Cytometry - Anti-GPCR C5L2 antibody [1D9-M12] (ab278055)

GPCR C5L2 Flow Cytometry staining using mouse Anti-GPCR C5L2 antibody

Flow cytometric analysis of human peripheral whole blood labeling GPCR C5L2 using ab278055 at 5 µg/ml, followed by a Goat Anti-Mouse APC secondary antibody.

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