abcam

ab11466

FITC Anti-CCR5/CD195 antibody [HEK/1/85a]

Anti-CCR5/CD195 antibody [HEK/1/85a] conjugated to FITC - suitable for flow cytometry, IHC-Fr, and reacts with mouse, human, rat samples. Clone [HEK/1/85a] is a rat monoclonal antibody cited in 35 publications.

Key facts

Isotype	IgG2a
Host species	Rat
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CCR5 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P51681
Clone number	HEK/1/85a
Purification technique	Affinity purification Protein G
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purification by affinity chromatography.

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	-
Notes	ab18446 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Expected

Species	Mouse, Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information CCR5/CD195

Function	Receptor for a number of inflammatory CC-chemokines including CCL3/MIP-1-alpha, CCL4/MIP-1-beta and RANTES and subsequently transduces a signal by increasing the intracellular calcium ion level. May play a role in the control of granulocytic lineage proliferation or differentiation. Participates in T-lymphocyte migration to the infection site by acting as a chemotactic receptor (PubMed:30713770). (Microbial infection) Acts as a coreceptor (CD4 being the primary receptor) of human immunodeficiency virus-1/HIV-1.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

This product should be stored undiluted. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Supplementary info

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

Activity summary	CCR5 also known as the C-C chemokine receptor type 5 is a protein that functions as a receptor on the surface of cells predominantly immune cells like T-cells macrophages and dendritic cells. The approximate molecular weight of CCR5 is 40 kDa. This protein belongs to the G-protein-coupled receptor family and it mainly binds to β-chemokines. CCR5 is abundantly expressed in immune tissues such as the spleen thymus and lymph nodes. Researchers often use assays like the CCR5 ELISA kit to detect or quantify its presence in various samples.
Biological function summary	CCR5 acts as a receptor for various chemokines specifically CCL3 CCL4 and CCL5 which are involved in leukocyte trafficking and immune response modulation. It plays an important role in the migration of immune cells to sites of inflammation or injury. This protein does not function in isolation; it sometimes forms part of larger complexes with other cell surface proteins to mediate responses to external signals. For example anti-CCR5 antibodies like 12D1 can modulate its activity and influence immune cell behavior.
Pathways	CCR5 is intricately involved in chemokine signaling pathways and inflammatory response pathways. Through these pathways it interacts with proteins such as CXCR4 and CCR1. CCR5 and CXCR4 another chemokine receptor are well-documented for their role in HIV entry into host cells. These pathways are critical for orchestrating immune cell movement and activating signaling cascades that promote immune defense mechanisms.
Associated diseases and disorders	CCR5 has a significant association with HIV infection and is a known co-receptor facilitating the virus's entry into immune cells. The presence of mutations like the Δ32 allele in the CCR5 gene provides resistance against HIV infection highlighting its importance in disease dynamics. CCR5 also plays a role in inflammatory diseases such as rheumatoid arthritis where it contributes to the migration of immune cells into joints exacerbating inflammation. In these contexts CCR5 interacts with other inflammatory mediators offering potential therapeutic targets for drug development.

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.

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Terms & Conditions.

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