abcam

ab275978

# Anti-CD11a antibody [hu1124 (Efalizumab)] - Rabbit IgG (Chimeric)

Recombinant

## Key facts

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|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | Preservative: 0.02% Proclin 300 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Recombinant Fragment Protein within Human ITGAL. The exact immunogen used to generate this antibody is proprietary information. Database link P20701 |
| **Clone number** | hu1124 (Efalizumab) |
| **Purification technique** | Affinity purification Protein A |
| **Light chain type** | kappa |
| **Concentration** | 1 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Flow Cyt

### Tested

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|---|---|
| **Species** | Human |
| **Dilution info** | 1 µg/mL |

| | |
|---|---|
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 3 µg/mL |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

# Target data

See full target information ITGAL

**Function**

Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4 (PubMed:10846180, PubMed:12526797, PubMed:1676048, PubMed:3086451). Integrin ITGAL/ITGB2 is a receptor for F11R (PubMed:11812992, PubMed:15528364). Integrin ITGAL/ITGB2 is a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (PubMed:29100055). Involved in a variety of immune phenomena including leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. Contributes to natural killer cell cytotoxicity (PubMed:15356110). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (PubMed:11812992). Acts as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion (PubMed:38195629). Required for generation of common lymphoid progenitor cells in bone marrow, indicating a role in lymphopoiesis (By similarity). Integrin ITGAL/ITGB2 in association with ICAM3, contributes to apoptotic neutrophil phagocytosis by macrophages (PubMed:23775590). Integrins ITGAL:ITGB2 functions as a receptor

of the neuron-specific adhesion molecule ICAM5 ensuring neuron cell-leukocyte adhesion (PubMed:10741396). Integrin ITGAL/ITGB2 that functions as a signaling receptor of ICAM2, ensuring leukocyte cell-cell adhesion on resting cells (PubMed:1676048).

## Storage

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| **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 |

## Notes

This rabbit monoclonal chimeric antibody was made using the variable domain sequences of the original Human IgG1 format, for improved compatibility with existing reagents, assays and techniques.

## Supplementary info

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

| | |
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| **Activity summary** | CD11a also known as ITGAL and LFA-1 alpha chain or integrin alpha L is a protein that functions as an important component of the immune system. It has a molecular mass of approximately 180 kDa. CD11a is expressed predominantly in leukocytes enabling these immune cells to adhere and interact with other cells. This adhesive property is especially critical in the trafficking of leukocytes to sites of inflammation and infection. CD11a pairs with CD18 to form the leukocyte function-associated antigen-1 (LFA-1) complex which plays a significant role in cell signaling and immune responses. |
| **Biological function summary** | This protein enables leukocyte adhesion and transendothelial migration which are essential for the immune surveillance process. CD11a is a part of the integrin family known for regulating cell adhesion and interactions with the extracellular matrix. By forming a heterodimer with CD18 it mediates tight adhesion between immune cells and endothelial cells. This interaction aids in the immune response by enhancing the activation and movement of T cells and other leukocytes through the vascular endothelium into tissues. |

| | |
|---|---|
| **Pathways** | The protein participates in the immune cell trafficking pathway and the integrin signaling pathway. In these pathways CD11a contributes to the modulation of immune responses and cell movement. The interaction of CD11a with intercellular adhesion molecule 1 (ICAM-1) and other proteins within these pathways emphasizes its role in the firm adhesion of leukocytes during inflammation and infection ultimately facilitating leukocyte extravasation and tissue infiltration. |
| **Associated diseases and disorders** | CD11a is highly relevant to autoimmune diseases such as psoriasis and multiple sclerosis. For instance in psoriasis the overactive immune response involves overexpression of integrins including CD11a leading to inflammation. The protein Efalizumab a monoclonal antibody against CD11a has been used in the treatment of psoriasis to reduce leukocyte adhesion and activation. Such relationships highlight CD11a's critical role in both normal immune function and pathological conditions. |

## 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**

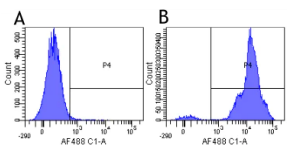
We do not recommend this combination. It is not covered by our product promise.

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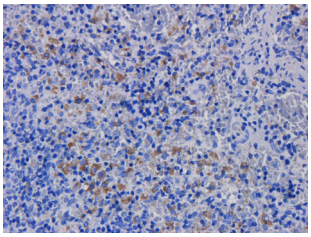
## 2 product images




### Flow Cytometry - Anti-CD11a antibody [hu1124 (Efalizumab)] - Rabbit IgG (Chimeric) (ab275978)

CD11a Flow Cytometry staining using rabbit Anti-CD11a antibody

This data was produced using the human IgG1, kappa version of the antibody.
Flow cytometry of human lymphocytes labeling CD11a with the human IgG1, kappa version of the antibody (panel B) compared with an isotype control (panel A) at 1 µg/ml for 30 mins at RT. After washing, bound antibody was detected using Donkey Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150073) and cells analysed on a FACSCanto flow-cytometer.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11a antibody [hu1124 (Efalizumab)] - Rabbit IgG (Chimeric) (ab275978)

CD11a Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD11a antibody

This data was produced using the human IgG1, kappa version of the antibody.
Anti-CD11a staining of formaldehyde fixed paraffin embedded rat spleen tissue, at 40x magnification. The human IgG1-chimeric version of the antibody was used to stain samples at a concentration of 3 µg/ml.

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