Human IL-4I1 Antibody

Monoclonal Rat IgG_{2B} Clone # 1006202

Catalog Number: MAB5684

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-4I1 in direct ELISAs.
Source	Monoclonal Rat IgG_{2B} Clone # 1006202
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived human IL-4I1 Met1-His567 Accession # Q96RQ9
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

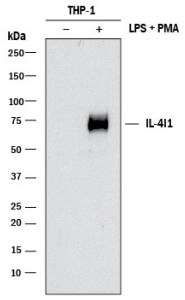
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunocytochemistry	5-25 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

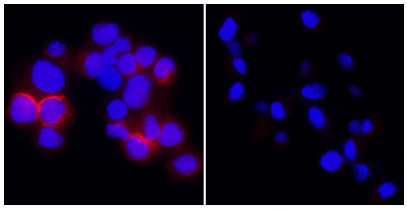
DATA

Western Blot



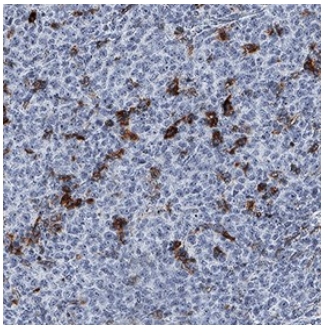
Detection of Human IL-4I1 by Western Blot. Western blot shows lysates of THP-1 human acute monocytic leukemia cell line untreated (-) or treated (+) with 200 nM PMA for 24 hours and 10 µg/mL LPS for 3 hours. PVDF membrane was probed with 2 µg/mL of Rat Anti-Human IL-4I1 Monoclonal Antibody (Catalog # MAB5684) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # Catalog # HAF005). A specific band was detected for IL-4I1 at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



IL-4I1 in HDLM-2 Human Cell Line. IL-4I1 was detected in immersion fixed HDLM-2 human Hodgkin's lymphoma cell line using Rat Anti-Human IL-4I1 Monoclonal Antibody (Catalog # MAB5684) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm in lysosomes. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

Immunohistochemistry



IL-4I1 in Human B Cell Lymphoma. IL-4I1 was detected in immersion fixed paraffin-embedded sections of human B cell lymphoma using Rat Anti-Human IL-4I1 Monoclonal Antibody (Catalog # MAB5684) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rat IgG VisUCyte™ HRP Polymer Antibody (Catalog # Catalog # VC005). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in lymphocytes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Human IL-4I1 Antibody

Monoclonal Rat IgG_{2B} Clone # 1006202

Catalog Number: MAB5684

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin 4 induced protein 1 (IL-4I1), also known as protein FIG-1 and L-amino acid oxidase, is encoded by a B-cell IL-4-inducible gene, FIG1, and is highly expressed in primary metastinal B-cell lymphomas (1-4). It belongs to the flavin monoamine oxidase family, FIG1 subfamily. Enzymological characterization reveals that IL-4I1 has L-amino acid oxidase activity with preference toward aromatic amino acids. Studies have shown that hIL-4I1 inhibited the proliferation of CD3-stimulated T lymphocytes with a similar effect on CD4(+) and CD8(+) T cells (5). Its inhibitory effect was dependent on enzymatic activity and H_2O_2 production. Its restricted expression to lymphoid tissues indicates that it may play an important function in the immune system (1, 4).

References:

1. Chu, C.C. and W.E. Paul. (1997) Proc. Natl. Acad. Sci. USA **94**:2507.
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3. Chavan, S.S. *et al.* (2002) Biochim. Biophys. Acta. **1576**:70.
4. Copie-Bergman, C. *et al.* (2003) Blood **101**:2756.
5. Boulland, M.L. *et al.* (2007) Blood **110**:220.

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USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449