bio-techne® RDSYSTEMS

Human AIF-1/Iba1 Antibody

Monoclonal Mouse IgG_{2A} Clone # 603102 Catalog Number: MAB7308

| DESCRIPTION | |
|--------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human AIF-1/Iba1 in direct ELISAs. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 603102 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human AIF-1/Iba1 Met1-Pro147 Accession # P55008 |
| 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 | |
| Multiplex Immunofluorescence | 5 µg/mL | Immersion fixed paraffin-embedded sections of human Brain Cortex | |
| Immunohistochemistry | 0.5-25 μg/mL | See Below | |

DATA

Multiplex Immunofluorescence



Detection of AIF1 in Human Brain Cortex via seqIF™ staining on COMET[™] AIF1 Antibody was detected in immersion fixed paraffinembedded sections of human Brain Cortex using Mouse Anti-Human AIF1, Monoclonal Antibody (Catalog # MAB7308) at 5ug/mL at 37 ° Celsius for 8 minutes. Before incubation with the primary antibody, tissue underwent an allin-one dewaxing and antigen retrieval preprocessing using PreTreatment Module (PT Module) and Dewax and HIER Buffer H (pH 9: Epredia Catalog # TA-999-DHBH).Tissue was stained using the Alexa Fluor™ 555 Goat anti-Mouse IgG Secondary Antibody at 1:100 at 37 ° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # DR555MS) and counterstained with DAPI (blue; Lunaphore Catalog # DR100). Specific staining was localized to the cytoplasm. Protocol available in COMET™ Panel Builder.

Immunohistochemistry



AIF-1/Iba1 in Human Spleen. AIF-1/lba1 was detected in immersion fixed paraffinembedded sections of human spleen using Mouse Anti-Human AIF-1/Iba1 Monoclonal Antibody (Catalog # MAB7308) at 0.5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in splenocytes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

| Reconstitution | Sterile PBS to a final concentration of 0.5 mg/mL. For liquid material, refer to CoA for concentration. | |
|---------------------|--|--|
| Shipping | Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below. | |
| 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. | |

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BACKGROUND

Allograft-inflammatory factor 1 (AIF-1), also known as daintain and Iba1, is a 17 kDa cytoplasmic protein that contains two calcium-binding EF hand motifs (aa 45-80 and aa 81-115). AIF-1 is expressed in activated macrophages and is important for the proinflammatory response to ischemia, tissue injury, and atherosclerosis. It is also expressed in vascular smooth muscle and endothelial cells in these areas where it promotes vascular remodeling and new vessel formation. AIF-1 is upregulated in allografted tissue during transplant rejection. It also promotes the proliferation of breast cancer cells and in vivo tumorigenesis. The 147 amino acid (aa) isoform 3 of human AIF-1 shares 89% aa sequence identity with mouse and rat AIF-1. Isoform 1 of human AIF-1 lacks the N-terminal 54 aa of isoform 3. Isoform 2 lacks aa 1-54 as well as aa 121-147 but also has a 66 aa insertion at position 65.