AIF1 Antibody for IHC / Allograft inflammatory factor 1 for Immunohistochemistry [clone MSVA-955M] (V6070)

Catalog No.	Formulation	Size
V6070-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6070-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant | MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2c, kappa
Clone Name	MSVA-955M
UniProt	P55008
Localization	Cell projection, Cytoplasm, Cytoskeleton, Phagocytic cup, Ruffle membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This AIF1/Allograft inflammatory factor 1 antibody is available for research use only.

AIF1 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Allograft inflammatory factor 1 AIF1, also known as IBA1, in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using mouse monoclonal antibody clone MSVA-955M. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates cytoplasmic localization in macrophages, monocytes, and microglia-associated cell populations, while epithelial and stromal cells remain largely negative. Strong immunoreactivity is observed in lymphoid tissues including spleen, lymph node, and tonsil, as well as in inflammatory cell infiltrates across multiple tumor types. Evaluation across large TMA panels enables direct comparison of AIF1 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported IBA1 expression profiles in the Human Protein Atlas and support its use as a marker of macrophage and microglial lineage cells.

Description

AIF1 Antibody for IHC clone MSVA-955M recognizes Allograft inflammatory factor 1, also known as IBA1, a cytoplasmic EF-hand calcium-binding protein encoded by the AIF1 gene on chromosome 6p21.3 within the major histocompatibility

complex region. Allograft inflammatory factor 1 is widely used as a marker of microglia in the central nervous system and macrophages in peripheral immune tissues. This recombinant antibody is designed to detect endogenous AIF1 protein expression in formalin-fixed, paraffin-embedded tissues. This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Allograft inflammatory factor 1, frequently referred to in the literature as IBA1 antibody target protein, belongs to the EF-hand superfamily and contains calcium-binding motifs that regulate actin cytoskeletal remodeling. The protein localizes primarily to the cytoplasm and cellular processes of microglia and macrophages, where it contributes to membrane ruffling, phagocytosis, migration, and inflammatory responses. Expression is low under resting conditions but increases during immune activation, tissue injury, infection, and neurodegeneration.

AIF1 is strongly expressed in resident microglia of the brain and spinal cord, as well as in macrophages within spleen, lymph node, tonsil, and inflamed tissues. During embryonic development, microglial precursors begin expressing AIF1 as they populate the developing nervous system. In pathological contexts such as Alzheimer disease, multiple sclerosis, traumatic brain injury, and tumor-associated inflammation, increased AIF1 expression correlates with activated microglial and macrophage populations.

As an IHC-focused reagent, AIF1 Antibody for IHC clone MSVA-955M supports research requiring visualization of macrophage and microglial distribution in tissue sections. The recombinant format promotes consistency between production lots while targeting AIF1 protein in research applications. Detection of AIF1 can assist investigators studying neuroinflammation, immune cell infiltration, tumor microenvironments, and inflammatory disorders. This antibody targets AIF1 in research applications involving tissue-based analysis of macrophage and microglial populations.

For detection of AIF1 as a microglia marker across tissue types, including protein microarray validated performance, see our IBA1 antibody.

Application Notes

1. Optimal dilution of the AIF1 antibody for IHC should be determined by the researcher.

2. This AIF1/Allograft inflammatory factor 1 antibody is recombinantly produced by expression in CHO cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Purified recombinant human AIF1 protein (around amino acids 1-146) (exact sequence is proprietary) was used as the immunogen for the AIF1/Allograft inflammatory factor 1 antibody.

Storage

AIF1/Allograft inflammatory factor 1 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.