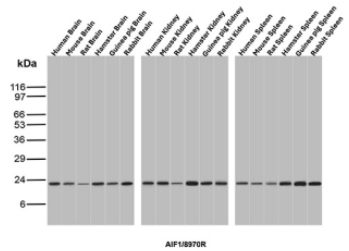
Allograft Inflammatory Factor 1 Antibody / AIF1 Cross-Species WB Antibody [clone AIF1/8970R] (V5150)

Catalog No.	Formulation	Size
V5150-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5150-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5150SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

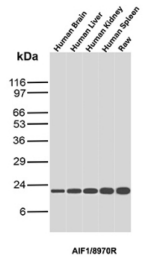
Recombinant RABBIT MONOCLONAL

Bulk quote request

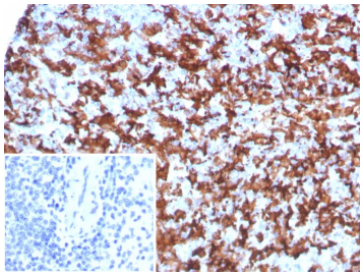
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Guinea pig
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	AIF1/8970R
Purity	Protein A/G affinity
UniProt	P55008
Localization	Cytoplasm, Cell Surface
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT (human) Western blot: 2-4ug/ml (Human/Mouse/Rat/Rabbit/Hamster/Guinea pig)
Limitations	This Allograft Inflammatory Factor 1 Antibody / AIF1 Cross-Species WB Antibody is available for research use only.



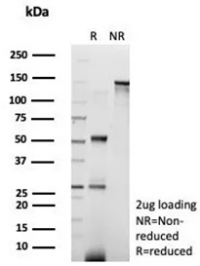
Allograft Inflammatory Factor 1 Antibody Multi-Species Tissue WB. Western blot analysis of brain, kidney, and spleen tissue lysates from human, mouse, rat, hamster, guinea pig, and rabbit using Allograft Inflammatory Factor 1 Antibody (clone AIF1/8970R) detects a band at the predicted molecular weight of approximately 17 kDa, consistent with AIF1 / IBA1 expression across multiple species and tissue types, supporting its use as a cross-species WB antibody for conserved detection of this macrophage and microglia marker.



Allograft inflammatory factor 1 Antibody Human Tissue WB. Western blot analysis of human brain, liver, kidney, spleen, and RAW cell lysates using AIF1 Antibody (clone AIF1/8970R) detects a band at the predicted molecular weight of approximately 17 kDa, consistent with Allograft inflammatory factor 1 expression across diverse human tissues and macrophage-derived cells.



Allograft inflammatory factor 1 Antibody Spleen IHC. Immunohistochemistry of Allograft inflammatory factor 1 Antibody clone AIF1/8970R in human spleen tissue. Formalin-fixed, paraffin-embedded spleen demonstrates cytoplasmic HRP-DAB brown staining in numerous macrophage-lineage cells within the splenic red pulp and scattered immune cells in the white pulp, consistent with Allograft inflammatory factor 1 expression in activated macrophages and mononuclear phagocytes. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining. The monoclonal antibody clone AIF1/8970R was used as the primary antibody. Inset: PBS was used in place of the primary antibody as a secondary antibody negative control.



SDS-PAGE analysis of purified, BSA-free recombinant Allograft Inflammatory Factor 1 antibody (AIF1/8970R) as confirmation of integrity and purity.

Description

Allograft inflammatory factor 1 (AIF1) is a calcium-binding cytoplasmic protein encoded by the AIF1 gene and expressed in macrophages and microglia, where it functions as a conserved marker of immune cell activation across multiple species. Allograft Inflammatory Factor 1 Antibody / AIF1 Cross-Species WB Antibody (clone AIF1/8970R) targets this protein and is well suited for detecting AIF1 expression by western blot in diverse biological samples. AIF1 antibody, also referred to as IBA1 antibody and Allograft inflammatory factor 1 antibody in the literature, recognizes a key regulator of cytoskeletal dynamics and inflammatory signaling in monocyte-derived cells.

Functionally, AIF1 plays a central role in immune cell activation and motility. It participates in actin-bundling processes that enable macrophages and microglia to migrate, change morphology, and respond to inflammatory cues. AIF1 expression is upregulated in activated immune cells and is associated with processes such as phagocytosis, cytokine production, and tissue surveillance. These functions make AIF1 a widely used marker for studying inflammation and immune responses across different experimental systems.

One of the defining features of AIF1 is its high degree of conservation across mammalian species, allowing for consistent detection in human, mouse, rat, and other model organisms. This conservation supports its use in cross-species western blot applications, where a single antibody can detect AIF1 protein in multiple tissue types, including brain, kidney, and spleen. In these tissues, AIF1 is typically observed as a cytoplasmic protein associated with macrophage and microglial populations, reflecting its role in immune cell function.

Structurally, AIF1 contains EF-hand calcium-binding domains that regulate its interaction with actin filaments and intracellular signaling pathways. These domains enable calcium-dependent modulation of cytoskeletal organization and cellular activation. AIF1 has been shown to co-localize with actin structures and membrane-associated regions, supporting its involvement in cell motility and immune responses. In addition to structural roles, AIF1 participates in

signaling pathways that regulate inflammatory gene expression and immune cell activation states.

Altered AIF1 expression is associated with a range of pathological conditions, including inflammatory diseases, transplant rejection, and tumor-associated macrophage activity. In the central nervous system, increased AIF1 expression is a hallmark of microglial activation in neurodegenerative conditions, while in peripheral tissues it reflects macrophage-driven inflammatory responses. These properties highlight AIF1 as a valuable marker for studying immune activation across multiple biological contexts.

For researchers requiring robust detection across species and sample types, this antibody provides reliable performance in western blot applications, supporting consistent identification of AIF1 / IBA1 protein in multi-species experimental systems. An AIF1 antibody is suitable for detecting this immune cell marker in studies of inflammation, immune signaling, and cross-species protein expression analysis.

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

Application Notes

Optimal dilution of the Allograft Inflammatory Factor 1 Antibody / AIF1 Cross-Species WB Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-146) from the human protein was used as the immunogen for the Allograft Inflammatory Factor 1 antibody.

Storage

Aliquot the Allograft Inflammatory Factor 1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

AIF1 antibody, IBA1 antibody, Allograft inflammatory factor 1 antibody, AIF1 western blot antibody, IBA1 WB antibody

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