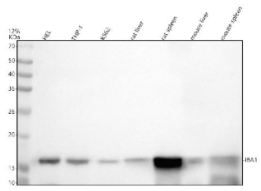
AIF1 Antibody / IBA1 [clone 31A74] (FY12026)

Catalog No.	Formulation	Size
FY12026	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31A74
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P55008, O70200
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This AIF1 antibody is available for research use only.



Western blot analysis of AIF1 using anti-AIF1 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HEL whole cell lysates, Lane 2: human THP-1 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: rat spleen tissue lysates, Lane 6: mouse liver tissue lysates, Lane 7: mouse spleen tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AIF1 antibody at 1: 500 overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A specific band was detected for AIF1 at approximately 17 kDa. The expected band size for IBA1/AIF1 is at 17 kDa.

Description

IBA1 antibody detects allograft inflammatory factor 1 (AIF1), a calcium-binding protein expressed in microglia and macrophages. IBA1 participates in actin cytoskeleton remodeling, enabling immune cells to migrate and phagocytose effectively. In the central nervous system, it serves as a widely used microglial marker, allowing researchers to monitor immune responses within brain tissue. Its expression increases during neuroinflammation, making it valuable for studying disease-related activation states.

Applications of IBA1 antibody include research on Alzheimer's disease, Parkinson's disease, multiple sclerosis, and traumatic brain injury. Microglial activation visualized through IBA1 staining helps define the extent and nature of neuroimmune involvement in these conditions. Beyond neuroscience, AIF1 is also expressed in peripheral macrophages, where it regulates inflammatory pathways and vascular remodeling, linking it to atherosclerosis and transplant rejection models.

Antibodies against IBA1 are validated for immunohistochemistry, immunofluorescence, and western blot. These tools allow precise localization of microglia and provide insights into how immune cells interact with neurons and glia in health and disease. Clone-based products ensure high specificity with minimal background staining.

NSJ Bioreagents provides this IBA1 antibody for research applications in neuroscience, inflammation, and immunology. Alternate names include allograft inflammatory factor 1 antibody, ionized calcium-binding adapter molecule 1 antibody, and microglial marker antibody.

Application Notes

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

Immunogen

A synthesized peptide derived from human Iba1 was used as the immunogen for the AIF1 antibody.

Storage

Store the AIF1 antibody at -20oC.