

Datasheet: AHP2024

**BATCH NUMBER 172606**

<b>Description:</b>	GOAT ANTI AIF1 (C-TERMINAL)
<b>Specificity:</b>	AIF1 (C-TERMINAL)
<b>Other names:</b>	IBA1
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			2.0ug/ml
ELISA	▪			1/32000
Immunoprecipitation			▪	
Western Blotting	▪			1.0 - 3.0ug/ml

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

**(1) This antibody requires heat-mediated antigen retrieval prior to staining paraffin sections. Tris/EDTA buffer pH9.0 is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Mouse, Rat</p> <p>Based on sequence similarity, is expected to react with: Pig</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>

<b>Product Form</b>	Purified IgG - liquid
<b>Antiserum Preparation</b>	Antiserum to human AIF1 (CT) was raised by repeated immunisation of goats with highly purified antigen. Purified IgG was prepared by affinity chromatography.
<b>Buffer Solution</b>	TRIS buffered saline
<b>Preservative Stabilisers</b>	0.02% Sodium Azide (NaN <sub>3</sub> ) 0.5% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5mg/ml
<b>Immunogen</b>	Synthetic peptide sequence C-TGPPAKKAISELP from the C-terminal region of AIF1 (NP_116573.1; NP_001614.3).
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">P55008</a>    <a href="#">Related reagents</a></p> <p><a href="#">P55009</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">199</a>    AIF1    <a href="#">Related reagents</a></p> <p><a href="#">29427</a>    Aif1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	G1, Iba1, IBA1, Mrf1
<b>RRID</b>	AB_2224406
<b>Specificity</b>	<p><b>Goat anti AIF1 antibody</b> recognizes human allograft inflammatory factor 1 (AIF1), otherwise known as Ionized calcium-binding adapter molecule 1 (IBA1). AIF1 is a 147 amino acid ~17kDa actin-binding protein involved in macrophage activation, vascular smooth muscle cell proliferation and activation and T-lymphocyte proliferation (<a href="#">UniProt P55008</a>). Goat anti AIF1 antibody recognizes epitopes at the C-terminal region of AIF1 and is expected to recognize AIF1 isoform 1 and isoform 3 formed by alternative splicing.</p> <p>AIF1 was first identified in rat cardiac allografts with chronic rejection (<a href="#">Utans et al. 1995</a>), is expressed by activated monocytes and macrophages (<a href="#">Orsmark et al. 2007</a>) and plays a significant role in vascular inflammation (<a href="#">Chen et al. 2004</a>)</p> <p>Goat anti AIF1 has been used successfully for the identification of AIF1 expressing cells in an inflammatory model in formalin fixed mouse brain following heat mediated antigen retrieval with sodium citrate buffer by immunohistochemistry (<a href="#">Wang et al. 2014</a>).</p>
<b>Western Blotting</b>	AHP2024 detects a band of approximately 16kDa in rat brain cell lysates.
<b>References</b>	1. Kang, D.H. <i>et al.</i> (2020) Effects of Cerebrolysin on Hippocampal Neuronal Death After Pilocarpine-Induced Seizure. <a href="#">Front Neurosci. 14: 568813.</a>

2. Wu, C. *et al.* (2022) E3 ubiquitin ligase Triad1 promotes neuronal apoptosis by regulating the p53-caspase3 pathway after spinal cord injury. [Somatosens Mot Res. 39 \(1\): 21-8.](#)
3. Zhou, C. *et al.* (2022) Mild Hypothermia Protects Brain Injury After Intracerebral Hemorrhage in Mice Via Enhancing the Nrpd1/MyD88 Signaling Pathway. [Neurotox Res. 40 \(6\): 1664-72.](#)
4. Sheu, M.L. *et al.* (2023) Thrombin-Induced Microglia Activation Modulated through Aryl Hydrocarbon Receptors. [Int J Mol Sci.24 \(14\):11416.](#)
5. Lu, X. *et al.* (2018) HAX1 is associated with neuronal apoptosis and astrocyte proliferation after spinal cord injury. [Tissue Cell. 54: 1-9.](#)
6. Yu, M. *et al.* (2023) PU.1 interaction with p50 promotes microglial-mediated inflammation in secondary spinal cord injury in SCI rats. [Int J Neurosci. 133 \(4\): 389-402.](#)
7. Lassen, L.B. *et al.* (2022) Mutation of Tyrosine Sites in the Human Alpha-Synuclein Gene Induces Neurotoxicity in Transgenic Mice with Soluble Alpha-Synuclein Oligomer Formation. [Cells. 11 \(22\): 3673.](#)
8. Kardash, E. *et al.* (2025) Pro-cognitive efficacy of Prospekta in a rat model of age-associated cognitive impairment. [BMC Neurosci. 26 \(1\): 35.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10058 available at: <https://www.bio-rad-antibodies.com/SDS/AHP2024>

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**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Goat IgG (Fc) (STAR122...) [FITC](#), [HRP](#)

### Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M438035:250321'

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