

Datasheet: AHP2024

BATCH NUMBER 168380

Description:	GOAT ANTI AIF1 (C-TERMINAL)
Specificity:	AIF1 (C-TERMINAL)
Other names:	IBA1
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	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.

	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.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Mouse, Rat</p> <p>Based on sequence similarity, is expected to react with: Pig</p> <p>N.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>

Product Form	Purified IgG - liquid
Antiserum Preparation	Antiserum to human AIF1 (CT) was raised by repeated immunisation of goats with highly purified antigen. Purified IgG was prepared by affinity chromatography.
Buffer Solution	TRIS buffered saline
Preservative Stabilisers	0.02% Sodium Azide (NaN ₃) 0.5% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.5mg/ml
Immunogen	Synthetic peptide sequence C-TGPPAKKAISELP from the C-terminal region of AIF1 (NP_116573.1; NP_001614.3).
External Database Links	<p>UniProt:</p> <p>P55008 Related reagents</p> <p>P55009 Related reagents</p> <p>Entrez Gene:</p> <p>199 AIF1 Related reagents</p> <p>29427 Aif1 Related reagents</p>
Synonyms	G1, Iba1, IBA1, Mrf1
RRID	AB_2224406
Specificity	<p>Goat anti AIF1 antibody 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 (UniProt P55008). 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 (Utans <i>et al.</i> 1995), is expressed by activated monocytes and macrophages (Orsmark <i>et al.</i> 2007) and plays a significant role in vascular inflammation (Chen <i>et al.</i> 2004)</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 (Wang <i>et al.</i> 2014).</p>
Western Blotting	AHP2024 detects a band of approximately 16kDa in rat brain cell lysates.
References	1. Kang, D.H. <i>et al.</i> (2020) Effects of Cerebrolysin on Hippocampal Neuronal Death After Pilocarpine-Induced Seizure. Front Neurosci. 14: 568813.

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 Nrdp1/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.](#)

Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10058 available at: https://www.bio-rad-antibodies.com/SDS/AHP2024
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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M428172:240301'

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