

IBA 1

Cat.No. 234 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

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| Reconstitution/ Storage | 50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. |
| Applications | WB: 1 : 1000 (AP staining) IP: yes ICC: 1 : 1000 IHC: 1 : 1000 up to 1 : 5000 IHC-P/FFPE: 1 : 200 up to 1 : 2000 |
| Immunogen | Synthetic peptide corresponding to AA 134 to 147 from rat IBA1 (UniProt Id: P55009) |
| Reactivity | Reacts with: human (P55008), rat (P55009), mouse (O70200). Other species not tested yet. |
| Specificity | Specific for IBA 1. |
| matching control | 234-0P |

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Ionized calcium-binding adaptor molecule 1 (**IBA 1**) or allograft inflammatory factor 1 (**AIF 1**) is an EF hand calcium binding protein which is expressed selectively in microglia/macrophages. Microglia are the smallest of the glial cell types in the central nervous system with cell bodies of only 2-5 µm in diameter.

IBA 1 expression has been suggested to be associated with the neuroinflammatory response and with transplant rejection.

Selected References SYSY Antibodies

Distinct *in vivo* roles of secreted APP ectodomain variants APPs_α and APPs_β in regulation of spine density, synaptic plasticity, and cognition.

Richter MC, Ludewig S, Winschel A, Abel T, Bold C, Salzburger LR, Klein S, Han K, Weyer SW, Fritz AK, Laube B, et al. The EMBO journal (2018) : . **WB, IHC; tested species: mouse**

Memantine treatment of juvenile rats with kaolin-induced hydrocephalus.

Di Curzio DL, Nagra G, Mao X, Del Bigio MR

Brain research (2018) 1689: 54-62. **IHC-P; tested species: rat**

p75NTR regulates brain mononuclear cell function and neuronal structure in Toxoplasma infection-induced neuroinflammation. Düsedau HP, Klevevan J, Figueiredo CA, Biswas A, Steffen J, Kliche S, Haak S, Zagrebelsky M, Korte M, Dunay IR Glia (2019) 67(1): 193-211. **IHC; tested species: mouse**

Widespread transduction of astrocytes and neurons in the mouse central nervous system after systemic delivery of a self-complementary AAV-PHP.B vector.

Rincon MY, de Vin F, Duqué SI, Fripont S, Castaldo SA, Bouhuijzen-Wenger J, Holt MG

Gene therapy (2018) : . **IHC; tested species: mouse**

Microglial Ramification, Surveillance, and Interleukin-1β Release Are Regulated by the Two-Pore Domain K+Channel THIK-1. Madry C, Kyrargyri V, Arancibia-Cárcamo IL, Jolivet R, Kohsaka S, Bryan RM, Attwell D Neuron (2018) 97(2): 299-312.e6. **IHC; tested species: mouse**

p53 in AgRP neurons is required for protection against diet-induced obesity via JNK1.

Quiñones M, Al-Massadi O, Folgueira C, Bremser S, Gallego R, Torres-Leal L, Haddad-Tóvelli R, García-Caceres C, Hernandez-Bautista R, Lam BYH, Beiroa D, et al.

Nature communications (2018) 9(1): 3432. **IHC; tested species: mouse**

Chronic near lifetime toluene exposure in rodents does not replicate solvent abuse leukoencephalopathy in humans.

Ranson MA, Del Bigio MR

Neurotoxicology (2018) : . **IHC; tested species: rat**

Optic tract injury after closed head traumatic brain injury in mice: A model of indirect traumatic optic neuropathy.

Evanson NK, Guilhaume-Correa F, Herman JP, Goodman MD

PloS one (2018) 13(5): e0197346. **IHC; tested species: mouse**

Interaction of complement system and microglia activation in retina and optic nerve in a NMDA damage model.

Kuehn S, Reinehr S, Stute G, Rodust C, Grotgeut P, Hensel AT, Burkhard Dick H, Joachim SC

Molecular and cellular neurosciences (2018) : . **WB; tested species: mouse**

Long-Term Neuroinflammation Induced by Influenza A Virus Infection and the Impact on Hippocampal Neuron Morphology and Function.

Hosseini S, Wilk E, Michaelsen-Preusse K, Gerhauser I, Baumgärtner W, Geffers R, Schughart K, Korte M

The Journal of neuroscience : the official journal of the Society for Neuroscience (2018) 38(12): 3060-3080. **IHC; tested species: mouse**

Effects of the ecto-ATPase apyrase on microglial ramification and surveillance reflect cell depolarization, not ATP depletion.

Madry C, Arancibia-Cárcamo IL, Kyrargyri V, Chan VTT, Hamilton NB, Attwell D

Proceedings of the National Academy of Sciences of the United States of America (2018) 115(7): E1608-E1617. **IHC; tested species: rat**

High fat diet treatment impairs hippocampal long-term potentiation without alterations of the core neuropathological features of Alzheimer disease.

Salas IH, Weerasekera A, Ahmed T, Callaerts-Vegh Z, Himmelreich U, D'Hooge R, Balschun D, Saido TC, De Strooper B, Dotti CG

Neurobiology of disease (2018) 113: 82-96. **WB; tested species: mouse**

Deficiency of leptin receptor in myeloid cells disrupts hypothalamic metabolic circuits and causes body weight increase.

Gao Y, Vidal-Itriago A, Milanova I, Korpel NL, Kalsbeek MJ, Tom RZ, Kalsbeek A, Hofmann SM, Yi CX

Molecular metabolism (2018) 7: 155-160. **IHC; tested species: mouse**

Beneficial effects of n-3 polyunsaturated fatty acids administration in a partial lesion model of Parkinson's disease: The role of glia and NRF2 regulation.

Hernando S, Requejo C, Herran E, Ruiz-Ortega JA, Morera-Herreras T, Lafuente JV, Ugedo L, Gainza E, Pedraz JL, Igartua M,

Hernández RM, et al.

Neurobiology of disease (2018) : . **IHC; tested species: rat**

Dietary sugars, not lipids, drive hypothalamic inflammation.

Gao Y, Bielohuby M, Fleming T, Grabner GF, Foppen E, Bernhard W, Guzmán-Ruiz M, Layritz C, Legutko B, Zinser E, García-Cáceres C, et al.

Molecular metabolism (2017) 6(8): 897-908. **IHC**

Molecular Integration of Incretin and Glucocorticoid Action Reverses Immunometabolic Dysfunction and Obesity.

Quarta C, Clemmensen C, Zhu Z, Yang B, Joseph SS, Lutter D, Yi CX, Graf E, García-Cáceres C, Legutko B, Fischer K, et al.

Cell metabolism (2017) 26(4): 620-632.e6. **IHC; tested species: mouse**