

IBA 1

Cat.No. 234-0P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 134 to 147 from rat IBA1 (UniProt Id: P55009)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	234 003, 234 004, 234 006
Remarks	This control peptide consists of the synthetic peptide (aa 134 - 147 in rat IBA 1) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

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 General References

Morphological and ultrastructural features of Iba1-immunolabeled microglial cells in the hippocampal dentate gyrus. Shapiro LA, Perez ZD, Foresti ML, Arisi GM, Ribak CE
Brain research (2009) 1266: 29-36.

Reduction of Iba1-expressing microglial process density in the hippocampus following electroconvulsive shock. Jinno S, Kosaka T
Experimental neurology (2008) 212(2): 440-7.

A comparison of spinal Iba1 and GFAP expression in rodent models of acute and chronic pain. Romero-Sandoval A, Chai N, Nutile-McMenemy N, Deleo JA
Brain research (2008) 1219: 116-26.

Expression of Iba1 protein in microglial cells of zitter mutant rat. Kadowaki T, Nakadate K, Sakakibara S, Hirata K, Ueda S
Neuroscience letters (2007) 411(1): 26-31.

Visualization of microglia in living tissues using Iba1-EGFP transgenic mice. Hirasawa T, Ohsawa K, Imai Y, Ondo Y, Akazawa C, Uchino S, Kohsaka S
Journal of neuroscience research (2005) 81(3): 357-62.

Microglia/macrophage-specific protein Iba1 binds to fimbrin and enhances its actin-bundling activity. Ohsawa K, Imai Y, Sasaki Y, Kohsaka S
Journal of neurochemistry (2004) 88(4): 844-56.

Intracellular signaling in M-CSF-induced microglia activation: role of Iba1. Imai Y, Kohsaka S
Glia (2002) 40(2): 164-74.

Macrophage/microglia-specific protein Iba1 enhances membrane ruffling and Rac activation via phospholipase C-gamma-dependent pathway. Kanazawa H, Ohsawa K, Sasaki Y, Kohsaka S, Imai Y
The Journal of biological chemistry (2002) 277(22): 20026-32.

Iba1 is an actin-cross-linking protein in macrophages/microglia. Sasaki Y, Ohsawa K, Kanazawa H, Kohsaka S, Imai Y
Biochemical and biophysical research communications (2001) 286(2): 292-7.

Spermatid-specific expression of Iba1, an ionized calcium binding adaptor molecule-1, in rat testis. Iida H, Doiguchi M, Yamashita H, Sugimachi S, Ichinose J, Mori T, Shibata Y
Biology of reproduction (2001) 64(4): 1138-46.

Heterogenous immunohistochemical expression of microglia-specific ionized calcium binding adaptor protein (Iba1) in the mouse olfactory bulb. Okere CO, Kaba H
Brain research (2000) 877(1): 85-90.

Involvement of Iba1 in membrane ruffling and phagocytosis of macrophages/microglia. Ohsawa K, Imai Y, Kanazawa H, Sasaki Y, Kohsaka S
Journal of cell science (2000) 113 (Pt 17): 3073-84.

Microglia-specific localisation of a novel calcium binding protein, Iba1. Ito D, Imai Y, Ohsawa K, Nakajima K, Fukuchi Y, Kohsaka S
Brain research. Molecular brain research (1998) 57(1): 1-9.