

## IBA 1

Cat.No. 234 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

### Data Sheet

Reconstitution/Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O, then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 (AP staining) <b>IP:</b> yes <b>ICC:</b> 1 : 500 <b>IHC:</b> 1 : 500 <b>IHC-P/FFPE:</b> 1 : 500
Immunogen	Synthetic peptide corresponding to AA 134 to 147 from rat IBA1 (UniProt Id: P55009)
Reactivity	Reacts with: human (P55008), rat (P55009), mouse (O70200), sheep. No signal: zebrafish. Other species not tested yet.
Specificity	Specific for IBA 1.
matching control	234-0P
Remarks	For unknown reasons the single domain anti-Guinea pig antibody cat. no. N0602 does not recognize this antibody.

**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

The metalloprotease ADAMTS4 generates N-truncated Aβ<sub>4</sub>-x species and marks oligodendrocytes as a source of amyloidogenic peptides in Alzheimer's disease.

Walter S, Jumpertz T, Hüttenrauch M, Ogorek I, Gerber H, Storck SE, Zampar S, Dimitrov M, Lehmann S, Lepka K, Berndt C, et al. *Acta neuropathologica* (2018) : . **IHC-P; tested species: mouse**

Cellular distribution of the NMDA-receptor activated synapto-nuclear messenger Jacob in the rat brain. Mikhaylova M, Karpova A, Bär J, Bethge P, YuanXiang P, Chen Y, Zuschratter W, Behnisch T, Kreutz MR *Brain structure & function* (2014) 219(3): 843-60. **IHC**

Inhibition of Bruton's Tyrosine Kinase Modulates Microglial Phagocytosis: Therapeutic Implications for Alzheimer's Disease. Keaney J, Gasser J, Gillet G, Scholz D, Kadiu J *Journal of neuroimmune pharmacology : the official journal of the Society on NeuroImmune Pharmacology* (2019) : . **IHC; tested species: mouse**

Long-lasting pathological consequences of overexpression-induced α-synuclein spreading in the rat brain. Rusconi R, Ulusoy A, Aboutaleb H, Di Monte DA *Aging cell* (2018) 17(2): . **IHC; tested species: rat**

A systems-level framework for drug discovery identifies Csf1R as an anti-epileptic drug target. Srivastava PK, Eyll JV, Godard P, Mazzuferi M, Delahaye-Duriez A, Steenwinckel JV, Gressens P, Danis B, Vandenplas C, Foerch P, Leclercq K, et al. *Nature communications* (2018) 9(1): 3561. **IHC; tested species: mouse**

Glycoprotein NMB: a novel Alzheimer's disease associated marker expressed in a subset of activated microglia. Hüttenrauch M, Ogorek I, Klafki H, Otto M, Stadelmann C, Weggen S, Wiltfang J, Wirths O *Acta neuropathologica communications* (2018) 6(1): 108. **IHC; tested species: mouse**

Changes in the Synaptic Proteome in Tauopathy and Rescue of Tau-Induced Synapse Loss by C1q Antibodies. Dejanovic B, Huntley MA, De Mazière A, Meilandt WJ, Wu T, Srinivasan K, Jiang Z, Gandham V, Friedman BA, Ngu H, Foreman O, et al. *Neuron* (2018) : . **IHC; tested species: mouse**

Damaged Neocortical Perineuronal Nets Due to Experimental Focal Cerebral Ischemia in Mice, Rats and Sheep. Härtig W, Mages B, Aleithe S, Nitzsche B, Altmann S, Barthel H, Krueger M, Michalski D *Frontiers in integrative neuroscience* (2017) 11: 15. **IHC; tested species: mouse, rat, sheep**

Neuroprotection and Blood-Brain Barrier Restoration by Salubrin After a Cortical Stab Injury. Barreda-Manso MA, Yanguas-Casás N, Nieto-Sampedro M, Romero-Ramírez L *Journal of cellular physiology* (2017) 232(6): 1501-1510. **IHC; tested species: mouse**

Low Density Lipoprotein-Receptor Related Protein 1 Is Differentially Expressed by Neuronal and Glial Populations in the Developing and Mature Mouse Central Nervous System. Auderset L, Cullen CL, Young KM *PLoS one* (2016) 11(6): e0155878. **IHC**

Effector T-cell trafficking between the leptomeninges and the cerebrospinal fluid. Schläger C, Körner H, Krueger M, Vidoli S, Haberl M, Mielke D, Brylla E, Issekutz T, Cabañas C, Nelson PJ, Ziemssen T, et al. *Nature* (2016) 530(7590): 349-53. **IHC**

### 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.