

Cat. No:	MAB-94785
Conjugate:	Unconjugated
Size:	100 ul
Clone:	EPR16589
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Peptide identical to the C-terminal of human IBA1 coupled to KLH
Reactivity:	Hu, Ms, Rt
Applications:	Western Blot: 1:1,000-2,000. Immunofluorescence:1:1,000-2,000 Immunocytochemistry: 1:1,000-2,000 Immunohistochemistry(paraffin-tissues): 1:1000 Immunohistochemistry (frozen-tissues): 1:1000 "Free floating"
Molecular Weight:	17kDa
Purification:	Aff.Pur.

Background:

IBA1 is an acronym for "ionized calcium binding adapter molecule 1", and the protein is also known as AIF1 for "allograft inflammatory factor 1". AIF1 was originally identified, cloned and sequenced as a protein heavily upregulated in an animal model of graft rejection (1). The AIF1 protein was localized in macrophages and neutrophils surrounding and infiltrating the graft site. Shortly afterwards the same protein was identified as IBA1 in a screen for cytokine induced genes in neurons (2). In the event the workers identified a gene product which was neither expressed in neurons nor induced by cytokines, but which had some very interesting properties, including the important observation that IBA1 was only expressed in hematopoietic cells. IBA1 and AIF1 were subsequently found to be identical, being a small globular 17kDa molecule belonging to the "EF" hand superfamily of Calcium binding proteins. As with other related molecules IBA1 probably has a role in Calcium buffering and in the responses of cells to changes in the level of cellular Calcium. IBA1 is specifically expressed in hematopoietic cells such as neutrophils, macrophages and monocytes. Since the only hematopoietic cells normally found within the central nervous system are microglia, suitable IBA1 antibodies are widely used to identify microglial cells in sections and tissues. Microglia are the immunocompetent cells of the CNS and are extremely important in responses to injury and disease. Microglial are small but very active cells which constantly send processes probing their neighborhood and which alter morphology and are induced to divide following a variety of CNS compromises.

Form:	Liquid
Buffer:	Supplied as an aliquot of serum plus 5mM NaN3
Storage:	Stable at 4°C for one year, for longer term store at -20°C. Avoid freeze/thaw cycles.

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