Iba1 Recombinant Antibody [JM36-62] - Rat IgG1 (Chimeric)

HA601367

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	IHC-Fr, IHC-P
Molecular Wt:	Predicted band size: 17 kDa
Clone number:	JM36-62

Description: Ionized calcium-binding adapter molecule 1 (Iba1), also known as allograft inflammatory factor-1 (AIF-1), is a 147 amino acid cytoplasmic, calcium-binding protein that is thought to play a role in macrophage activation and function. Iba1, containing two EF domains, is induced by cytokines and interferons. In an unstimulated state, Iba1 colocalizes with actin, and upon stimulation, translocates to lamellipodia. It is also a marker of human microglia and is expressed by macrophages in injured skeletal muscle. The gene encoding Iba1 maps to chromosome 6p21.33 and resides in the tumor necrosis factor (TNF) cluster of genes located in the region represented by the human major histocompatibility complex (MHC).

Immunogen: Synthetic peptide within N-terminal human Iba1.

Positive control: Mouse brain tissue, mouse striatum tissue, rat striatum tissue.

Subcellular location: Cytoplasm, cytoskeleton, Cell projection, ruffle membrane, Cell projection, phagocytic cup.

Database links: SwissProt: P55008 Human | O70200 Mouse | P55009 Rat

Recommended Dilutions:

IHC-Fr	1:1,000
IHC-P	1:100-1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

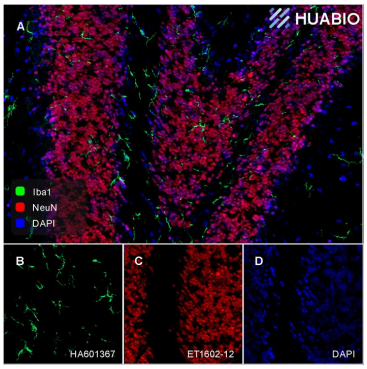

Fig1: Immunofluorescence analysis of frozen mouse cerebellum tissue with Rat anti-Iba1 antibody (HA601367) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA601367, green) at 1/1,000 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rat IgG H&L (iFluor™ 488, HA1133) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

Rabbit anti-NeuN antibody (ET1602-12, red) was stained at 1/1,000 dilution overnight at +4℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) was used as the secondary antibody at 1/1,000 dilution.

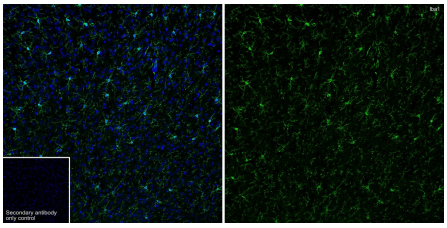

Fig2: Immunofluorescence analysis of frozen mouse brain tissue labeling Iba1 with Rat anti-Iba1 antibody (HA601367) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA601367, green) at 1/1,000 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rat IgG (H&L)-DyLight 488 was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

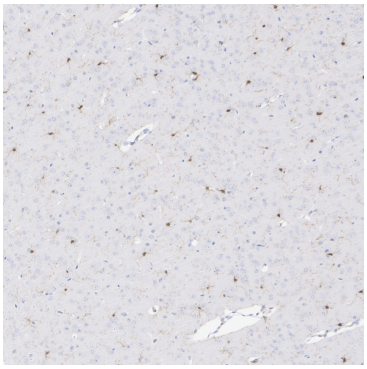

Fig3: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rat anti-Iba1 antibody (HA601367) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601367) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

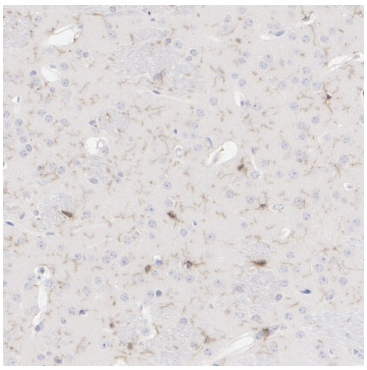

Fig4: Immunohistochemical analysis of paraffin-embedded mouse striatum tissue with Rat anti-Iba1 antibody (HA601367) at 1/100 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601367) at 1/100 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

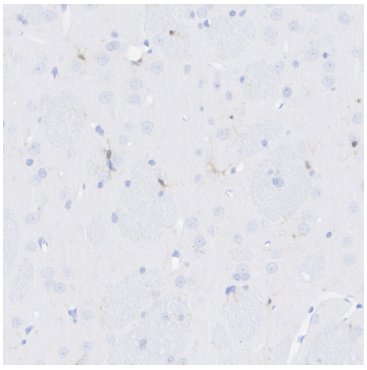

Fig5: Immunohistochemical analysis of paraffin-embedded rat striatum tissue with Rat anti-Iba1 antibody (HA601367) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601367) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Hennessy E et al. Systemic TNF-a produces acute cognitive dysfunction and exaggerated sickness behavior when superimposed upon progressive neurodegeneration. Brain Behav Immun 59:233-244 (2017).
2. Arentsen T et al. The bacterial peptidoglycan-sensing molecule Pglyrp2 modulates brain development and behavior. Mol Psychiatry 22:257-266 (2017).