#### Iba1 Recombinant Antibody [JM36-62] - Rat IgG1 (Chimeric) - BSA and Azide free

### **HA610213**

Product Type: Recombinant Chimeric Antibody, primary antibodies

Species reactivity: Mouse, Rat, Cynomolgus monkey, Pig

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

Storage Buffer: PBS (pH7.4).

**Storage Instruction:** Store at  $+4^{\circ}$ C after thawing. Aliquot store at  $-20^{\circ}$ C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

## Hangzhou Huaan Biotechnology Co., Ltd.

Technical:0086-571-89986345

Service mail:support@huabio.cn



#### **Images**

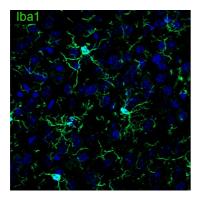


Fig1: Application: IHC-Fr

Species: Mouse

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

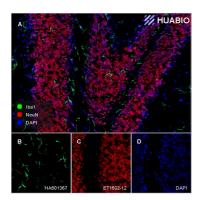


Fig2: Application: IHC-Fr

Species: Mouse

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1/1,000 (Iba1, HA610213, green);

1/1,000 (NeuN, ET1602-12, red)

Antigen retrieval: Not required

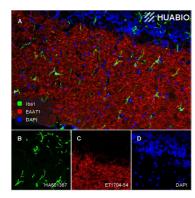


Fig3: Application: IHC-Fr

Species: Mouse

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1/500 (Iba1, HA610213, green); 1/1,000

(GLAST /EAAT1, ET1704-54, red)

Antigen retrieval: Not required

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Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rat anti-Iba1 antibody (HA610213) 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<sub>2</sub>O and PBS, and then probed with the primary antibody (HA610213) 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.



Fig5: Immunohistochemical analysis of paraffin-embedded mouse striatum tissue with Rat anti-Iba1 antibody (HA610213) 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<sub>2</sub>O and PBS, and then probed with the primary antibody (HA610213) 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.

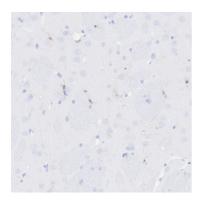


Fig6: Immunohistochemical analysis of paraffin-embedded rat striatum tissue with Rat anti-Iba1 antibody (HA610213) at 1/200 dilution.

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<sub>2</sub>O and PBS, and then probed with the primary antibody (HA610213) 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.

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **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).