SANTA CRUZ BIOTECHNOLOGY, INC.

# Iba1 (1022-5): sc-32725

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

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).

## CHROMOSOMAL LOCATION

Genetic locus: AIF1 (human) mapping to 6p21.33; Aif1 (mouse) mapping to 17 B1.

## SOURCE

Iba1 (1022-5) is a mouse monoclonal antibody raised against recombinant human allograft inflammatory factor-1.

## PRODUCT

Each vial contains 200 µg $IgG_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Iba1 (1022-5) is available conjugated to agarose (sc-32725 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32725 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32725 PE), fluorescein (sc-32725 FITC), Alexa Fluor® 488 (sc-32725 AF488), Alexa Fluor® 546 (sc-32725 AF546), Alexa Fluor® 594 (sc-32725 AF594) or Alexa Fluor® 647 (sc-32725 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32725 AF680) or Alexa Fluor® 790 (sc-32725 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

Iba1 (1022-5) is recommended for detection of Iba1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x $10^6$ cells).

Suitable for use as control antibody for Iba1 siRNA (h): sc-43857, Iba1 siRNA (m): sc-62484, Iba1 shRNA Plasmid (h): sc-43857-SH, Iba1 shRNA Plasmid (m): sc-62484-SH, Iba1 shRNA (h) Lentiviral Particles: sc-43857-V and Iba1 shRNA (m) Lentiviral Particles: sc-62484-V.

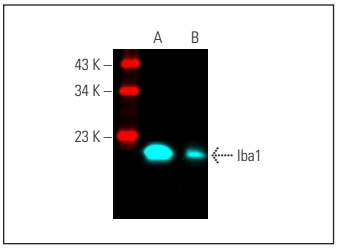
Molecular Weight of Iba1: 17 kDa.

Positive Controls: rat PBL whole cell lysate, rat brain extract: sc-2392 or mouse PBL whole cell lysate.

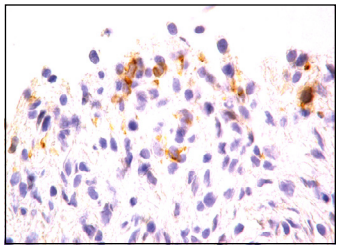
## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA




Iba1 (1022-5) Alexa Fluor® 647: sc-32725 AF647. Direct fluorescent western blot analysis of Iba1 expression in mouse PBL (**A**) and rat PBL (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 790: sc-516731.



Iba1 (AIF-1): sc-32725. Immunoperoxidase staining of formalin fixed, paraffin-embedded rat C6 glioblastoma. Kindly provided by Dr. Hermann Schluesener at U. of Tuebingen Steinbeis Center, Germany.

## SELECT PRODUCT CITATIONS

1. Ninkina, N., et al. 2009. γ-synucleinopathy: neurodegeneration associated with overexpression of the mouse protein. Hum. Mol. Genet. 18: 1779-1794.
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3. Chen, M., et al. 2014. Expression of SGTA correlates with neuronal apoptosis and reactive gliosis after spinal cord injury. Cell Tissue Res. 358: 277-288.
4. Slusarczyk, J., et al. 2015. Prenatal stress is a vulnerability factor for altered morphology and biological activity of microglia cells. Front. Cell. Neurosci. 9: 82.
5. Sunkaria, A., et al. 2016. Migration and phagocytic ability of activated microglia during post-natal development is mediated by calcium-dependent purinergic signalling. Mol. Neurobiol. 53: 944-954.
6. Rodriguez, M., et al. 2017. Intranasal drug delivery of small interfering RNA targeting Beclin1 encapsulated with polyethylenimine (PEI) in mouse brain to achieve HIV attenuation. Sci. Rep. 7: 1862.
7. Kiyota, T., et al. 2018. URMC-099 facilitates Amyloid-β clearance in a murine model of Alzheimer's disease. J. Neuroinflammation 15: 137.
8. Kumar, M., et al. 2019. Hydrogen sulfide suppresses homocysteine-induced glial activation and inflammatory response. Nitric Oxide 90: 15-28.
9. Campolo, M., et al. 2020. TLR7/8 in the pathogenesis of Parkinson's sisease. Int. J. Mol. Sci. 21: 9384.
10. Wang, W., et al. 2021. Apoptosis-antagonizing transcription factor is involved in rat post-traumatic epilepsy pathogenesis. Exp. Ther. Med. 21: 290.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.