SANTA CRUZ BIOTECHNOLOGY, INC.

Iba1 (F-4): sc-398406

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).

REFERENCES

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2. Autieri, M.V. and Agrawal, N. 1998. IRT-1, a novel interferon-γ-responsive transcript encoding a growth-suppressing basic leucine zipper protein. J. Biol. Chem. 273: 14731-14737.
3. Neville, M.J., et al. 1999. A new member of the Ig superfamily and a V-ATPase G subunit are among the predicted products of novel genes close to the TNF locus in the human MHC. J. Immunol. 162: 4745-4754.
4. Autieri, M.V., et al. 2003. AIF-1 is an Actin-polymerizing and Rac1-activating protein that promotes vascular smooth muscle cell migration. Circ. Res. 92: 1107-1114.
5. Allcock, R.J., et al. 2004. High-Density SNP genotyping defines 17 distinct haplotypes of the TNF block in the Caucasian population: implications for haplotype tagging. Hum. Mutat. 24: 517-525.
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8. Mishima, T., et al. 2008. Allograft inflammatory factor-1 augments macrophage phagocytotic activity and accelerates the progression of atherosclerosis in ApoE$^{-/-}$ mice. Int. J. Mol. Med. 21: 181-187.
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CHROMOSOMAL LOCATION

Genetic locus: AIF1 (human) mapping to 6p21.33.

SOURCE

Iba1 (F-4) is a mouse monoclonal antibody raised against amino acids 1-147 representing full length Iba1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Iba1 (F-4) is recommended for detection of Iba1 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

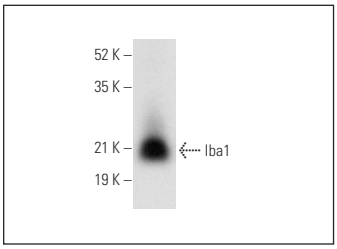
Molecular Weight of Iba1: 17 kDa.

Positive Controls: human peripheral blood leukocyte lysate: sc-363771.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Iba1 (F-4): sc-398406. Western blot analysis of Iba1 expression in human 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.

RESEARCH USE

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

CONJUGATES

See **Iba1 (1022-5): sc-32725** for Iba1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.