

**Amplified in breast cancer-1 protein (AIB-1/ACTR/SRC-3/pCIP) Antibodies**

**Cat.** AIB12-M

Monoclonal Anti-Human Amplified in breast cancer-1 protein (AIB-1) ascites

**SIZE:** 100 ul

The protein encoded by this gene is a nuclear receptor coactivator that interacts with nuclear hormone receptors to enhance their transcriptional activator functions. The encoded protein has histone acetyltransferase activity and recruits p300/CBP-associated factor and CREB binding protein as part of a multisubunit coactivation complex. This protein is initially found in the cytoplasm but is translocated into the nucleus upon phosphorylation. Two transcript variants encoding different isoforms have been found for this gene. In addition, a polymorphic repeat region is found in the C-terminus of the encoded protein.

**FUNCTION:** SwissProt: Q9Y6Q9 # Nuclear receptor coactivator that directly binds nuclear receptors and stimulates the transcriptional activities in a hormone-dependent fashion. Plays a central role in creating a multisubunit coactivator complex, which probably acts via remodeling of chromatin. Involved in the coactivation of different nuclear receptors, such as for steroids (GR and ER), retinoids (RARs and RXRs), thyroid hormone (TRs), vitamin D3 (VDR) and prostanoids (PPARs). Displays histone acetyltransferase activity. Also involved in the coactivation of the NF-kappa-B pathway via its interaction with the NFkB1 subunit.

**SIZE:** 1424 amino acids; 155293 Da

**SUBUNIT:** Interacts with CARM1 (By similarity). Present in a complex containing NCOA2, IKKA, IKKB, IKKKG and the histone acetyltransferase protein CREBBP. Interacts with CASP8AP2, NR3C1 and PCAF.

**SUBCELLULAR LOCATION:** Cytoplasm. Nucleus. Note=Mainly cytoplasmic and weakly nuclear. Upon TNF activation and subsequent phosphorylation, it translocates from the cytoplasm to the nucleus. **TISSUE SPECIFICITY:** Widely expressed. High expression in heart, skeletal muscle, pancreas and placenta. Low expression in brain, and very low in lung, liver and kidney. **DOMAIN:** SwissProt: Q9Y6Q9 Contains three Leu-Xaa-Xaa-Leu-Leu (LXXLL) motifs. Motifs 1 and 2 are essential for the association with nuclear receptors, and constitute the RID domain (Receptor-interacting domain).

**PTM:** Acetylated by CREBBP. Acetylation occurs in the RID domain, and disrupts the interaction with nuclear receptors and regulates its function. & Methylated by CARM1 (By similarity). & Phosphorylated by IKK complex. Regulated its function.

**SIMILARITY:** Belongs to the SRC/p160 nuclear receptor coactivator family. & Contains 1 basic helix-loop-helix (bHLH) domain. & Contains 1 PAS (PER-ARNT-SIM) domain.

Protein name Nuclear receptor coactivator 3

Synonyms EC 2.3.1.48; NCoA-3; Thyroid hormone receptor activator molecule 1; TRAM-1, ACTR, Receptor-associated coactivator 3, RAC-3, Amplified in breast cancer-1 protein, AIB-1, Steroid receptor coactivator protein 3, SRC-3, CBP-interacting protein, pCIP

Gene name Name: NCOA3

Synonyms: AIB1, RAC3, TRAM1

**Source of Antigen and Antibodies**

<b>Antigen</b>	Fusion protein corresponding to 605-1294 of human ACTR/AIB1 (protein accession #NM_181659)
<b>Ab Host/type</b>	Mouse, monoclonal, ascites designated as # AIB12-M (isotype IgG1, clone AIB12), in PBS+50% glycerol and 0.05% azide
<b>2-Ab</b>	<b>Goat Anti-mouse IgG-HRP conjugate</b> Cat # 40320 (AP, biotin, FITC conjugates also available)
<b>-ve control IgG</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Suggested applications for antibodies**

ELISA: use at 1:1-1:10K

Western: use at 1:500-1:3K (BG-1 cells lysate as positive control); Mol wt ~150 kda

IHC: 1-200-1:1K

IP: 5-20 ul/IP

**Specificity & Cross-reactivity**

Monoclonal Anti-AIB reacts with human AIB protein. Other species not tested. .

**General References:** Chen H (1997) Cell 90, 569-580; Anzick SL (1997) Science 277, 965-968; Shirazi SK (1998) Clin Genet. 54, 102-103; Werbajh S (2000) FEBS Lett. 485, 195-199; WU R-C (2002) Mol. Cell. Biol. 23, 6210-6220

\*This product is for *in vitro* research use only.

**Related material available from ADI:**

**Anti-phospho-serine, phospho-tyrsoine, and phospho-threonine**

**Western Blot recycling kit** (Use the same blot to probe with multiple antibodies CSP11, CLO11, etc.) **recycle blot at room temp in 5-10 min;** No mercaptoethanol or heating required).

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