

## Mouse anti-Human, Mouse AK3 Monoclonal Antibody | anti-AK3 antibody

AK3 antibody

| CATALOG # | HOST  | REACTIVITY   | APPLICATIONS                                                                                                         |
|-----------|-------|--------------|----------------------------------------------------------------------------------------------------------------------|
| AAA47983  | Mouse | Human, Mouse | Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Western Blot, ELISA |

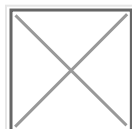
### PRODUCT SYNONYMS

AK3; Monoclonal Antibody; AK3 antibody; adenylate kinase; Ak6; FIX; Ak3L1; AkL3L; AkL3L1; adenylate kinase 3; adenylate kinase 6; adenylate kinase 3 like 1; anti-AK3 antibody

### PRODUCT SPECIFICATIONS

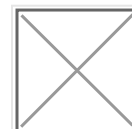
|                                               |                                                                                                                                                                                  |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                          | Mouse                                                                                                                                                                            |
| Reactivity                                    | Human, Mouse                                                                                                                                                                     |
| Clonality                                     | Monoclonal                                                                                                                                                                       |
| Isotype                                       | IgG1, k                                                                                                                                                                          |
| Clone Number                                  | SJB3-36                                                                                                                                                                          |
| Purity/Purification                           | By protein-G affinity chromatography                                                                                                                                             |
| Form/Format                                   | Liquid. In phosphate-buffered saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol.                                                                                             |
| Concentration                                 | 1mg/ml (varies by lot)                                                                                                                                                           |
| Sequence Length                               | 227                                                                                                                                                                              |
| Applicable Applications for anti-AK3 antibody | FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot), ELISA                                              |
| Antigen Species                               | Human                                                                                                                                                                            |
| Immunogen                                     | Recombinant human Ak3 (adenylate kinase isozyme 3) purified from E. coli                                                                                                         |
| Clone Note                                    | Anti-human Ak3 mAb, clone SJB3-36, is derived from hybridization of mouse SP2/O myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human Ak3 protein. |
| Preparation and Storage                       | Can be stored at 4 degree C.<br>For long term storage, aliquot and store at -20 degree C.<br>Avoid repeated freezing and thawing cycles.                                         |

### IMAGES



#### IF (Immunofluorescence)

ICC/IF analysis of AK3 in U87MG cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human AK3 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



#### IHC (Immunohistochemistry)

Human liver tissue was incubated with anti-human Ak3 (1:100) for 2 hours at room temperature. Slide was then washed in PBS, and was incubated in avidin biosystem anti-rabbit labeled polymer for 30 min at RT. Enzyme detection was performed with DAB chromo-gen.



#### WB (Western Blot)

The recombinant protein (50ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human AK3 antibody (1:1,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1. : Recombinant Human AK1 Lane 2. : Recombinant Human AK2 Lane 3. : Recombinant Human AK3 The lysate (40ug) were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human AK3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1. : Hep3B cell lysate Lane 2. : 293T cell lysate Lane 3. : Mouse kidney tissue lysate The lysate (40ug) were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human AK3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1. : Mouse liver tissue lysate

#### ADDITIONAL INFORMATION

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-AK3 antibody</b> | Adenylate kinase (Ak; adenosine triphosphate-adenosine monophosphate [ATP-AMP] phospho-transferase, EC 2.7.4.3) is a ubiquitous monomeric enzyme involved energy metabolism of prokaryotic and eukaryotic cells. Three isozymes (Ak1, Ak2 and Ak3) are characterized in vertebrates. Ak1 is present in the cytosol of skeletal muscle, brain, and erythrocyte, while Ak2 is localized in the intermembrane space of mitochondria of liver, kidney, spleen and heart. Ak3, called GTP:AMP phosphotransferase, exists in the mitochondrial matrix of liver and heart. These isozymes contribute to homeostasis of the adenine nucleotide composition in the cell. |
| <b>Product Categories/Family for anti-AK3 antibody</b>   | <a href="#">Signal Transduction</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>References</b>                                        | Noda, L.H. et al. (1973) The Enzymes. Vol. 8, 279-305; Khoo, J.C. et al. (1972) Biochim. Biophys. Acta 268, 98-101; Tomasselli, A.G. et al. (1979) Eur.J.Biochemolecules 93, 257-262; Lee, Y. et al. (1998) J. Biochem. 123, 47-54.                                                                                                                                                                                                                                                                                                                                                                                                                             |

#### NCBI AND UNIPROT INFORMATION

|                                         |                                                                                                                                                                                                       |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NCBI GI #</b>                        | <a href="#">19923437</a>                                                                                                                                                                              |
| <b>NCBI GeneID</b>                      | <a href="#">50808</a>                                                                                                                                                                                 |
| <b>NCBI Accession #</b>                 | <a href="#">NP_057366</a>                                                                                                                                                                             |
| <b>NCBI GenBank Nucleotide #</b>        | <a href="#">NM_016282.3</a>                                                                                                                                                                           |
| <b>UniProt Accession #</b>              | <a href="#">Q9UIJ7</a> ; <a href="#">Q5VYW6</a> ; <a href="#">Q9H576</a> ; <a href="#">Q9HC01</a> ; <a href="#">Q9NPB4</a> ; <a href="#">B4DP58</a> ; <a href="#">D3DRI1</a> ; <a href="#">E7ET30</a> |
| <b>Molecular Weight</b>                 | 21,014 Da                                                                                                                                                                                             |
| <b>NCBI Official Full Name</b>          | GTP:AMP phosphotransferase AK3, mitochondrial isoform a                                                                                                                                               |
| <b>NCBI Official Synonym Full Names</b> | adenylate kinase 3                                                                                                                                                                                    |
| <b>NCBI Official Symbol</b>             | AK3                                                                                                                                                                                                   |
| <b>NCBI Official Synonym Symbols</b>    | AK6; FIX; AK3L1; AKL3L; AKL3L1                                                                                                                                                                        |
| <b>NCBI Protein Information</b>         | GTP:AMP phosphotransferase AK3, mitochondrial                                                                                                                                                         |
| <b>UniProt Protein Name</b>             | GTP:AMP phosphotransferase AK3, mitochondrial                                                                                                                                                         |
| <b>UniProt Gene Name</b>                | <b>AK3</b>                                                                                                                                                                                            |
| <b>UniProt Synonym Gene Names</b>       | AK 3                                                                                                                                                                                                  |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

