

## Product datasheet for **SM6029**

### AK3 Mouse Monoclonal Antibody [Clone ID: SJB3-36]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	SJB3-36
Applications:	ELISA, IHC, WB
Recommended Dilution:	ELISA. Western blot (1:500 - 1:2,000), recommended starting dilution is 1:1,000. Immunohistochemistry (1:100).
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant human AK3 (adenylate kinase isozyme 3) purified from E. coli
Specificity:	This antibody (clone SJB3-36) has the specificity against AK3.
Formulation:	PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Protein-G affinity chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	adenylate kinase 3
Database Link:	<a href="#">Entrez Gene 50808 Human Q9UIJ7</a>



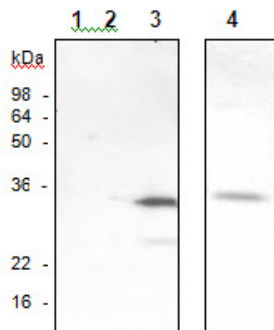
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**Background:**

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.

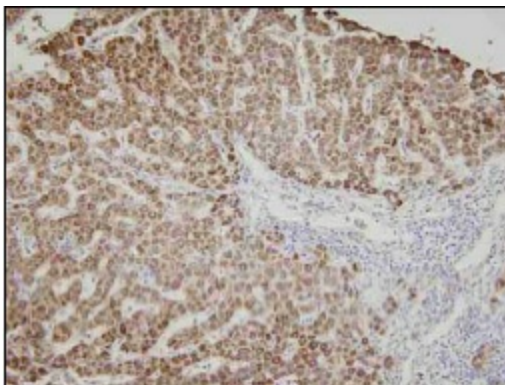
**Synonyms:**

AK3L1, AK6, AKL3L

**Product images:**

1: AK1 2: AK2  
3: AK3 4: Mouse liver

Western blot analysis: The recombinant human AK isozymes (AK1 (1), AK2 (2) and AK3 (3)) and mouse liver (4) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-AK3 antibody (1:1,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



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 chromogen.