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# Anti-AMPKα1 Mouse mAb [93D83]

**Catalog No.: A33010**

## Basic Information

| | |
|---|---|
| Catalog No. (Cat.No.) | A33010 |
| Host species | Mouse |
| Reactivity | Human,Mouse,Rat |
| Applications | WB,IHC,IF-P,ELISA |
| Synonyms | AMPKα1,AMPK-α1,AMPK,AMPKa1,AMPK alpha 1 |

## Product Information

| | |
|---|---|
| Target | AMPKα1 |
| Molecular Weight(Calculated) | 62 kDa |
| Molecular Weight(Observed) | NA |
| Isotype | IgG |
| Conjugation | NA |
| Concentration | 1 mg/ml |
| Clonality | Monoclonal |
| Clone No. | 93D83 |
| RRID | NA |
| Storage buffer | 0.05% preservative in PBS (pH 7.2-7.4) |
| Storage | Stored at -20°C for 1 year. Avoid repeated freeze / thaw cycles. |
| Shipped at conditions | Frozen |
| Form | Liquid |

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## Product Usage Information

| Application | Dilution |
|---|---|
| WB | 1:1000-1:2000 |
| IHC | 1:200-1:2000 |
| IF-P | 1:200-1:2000 |
| ELISA | 1:5000-1:20000 |

## Target Information

| | |
|---|---|
| Protein Name | 5'-AMP-activated protein kinase alpha-1 subunit |
| Gene Name | *PRKAA1* |
| Domain | Full length |
| Background | AMPKα1 (AMP-activated protein kinase α1 catalytic subunit) is a key catalytic isoform of the AMPK serine/threonine kinase family, encoded by the PRK aa1 gene, with a molecular weight of approximately 63 kDa. As a core energy-sensing protein in eukaryotic cells, AMPKα1 is widely distributed in most peripheral tissues, functioning as the primary catalytic subunit responsible for AMPK activation and downstream signal transduction. It precisely monitors cellular energy status, regulates glucose uptake, fatty acid oxidation, mitochondrial biogenesis and autophagy processes, and maintains intracellular energy and metabolic homeostasis. AMPKα1 dysfunction leads to energy metabolism disorders, insulin resistance, inflammatory responses and oxidative stress, which are closely involved in the occurrence and development of obesity, diabetes, cardiovascular diseases and tumors. |