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Anti-PRKAA1 Mouse mAb [12F95]

Catalog No.: A33112

Basic Information

Catalog No. (Cat.No.)	A33112
Host species	Mouse
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF-P,ELISA
Synonyms	PRKAA1,AMPK-α1,AMPK,AMPKa1,AMPK alpha 1

Product Information

Target	PRKAA1
Molecular Weight(Calculated)	65 kDa
Molecular Weight(Observed)	NA
Isotype	IgG
Conjugation	NA
Concentration	1 mg/ml
Clonality	Monoclonal
Clone No.	12F95
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
IHC	1:1000
IF-P	1:200-1:2000
ELISA	1:5000-1:20000

Target Information

Protein Name	5'-AMP-activated protein kinase catalytic subunit-alpha-1
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.