

# AK3L1 Rabbit mAb

Catalog # AP76383

## Product Information

Application	WB, IHC-P, IHC-F, IP, ICC
Primary Accession	<a href="#">P27144</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	25268

## Additional Information

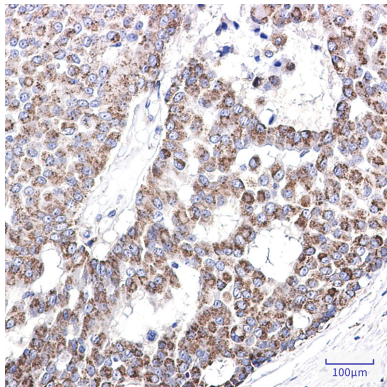
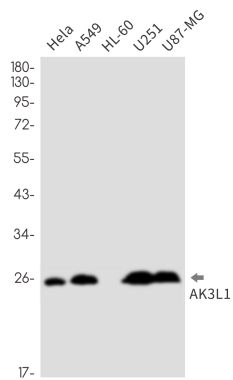
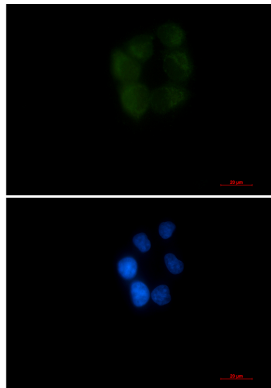
Gene ID	205
Other Names	AK4
Dilution	WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A ICC~~N/A
Format	Liquid

## Protein Information

Name	AK4 ( <a href="#">HGNC:363</a> )
Function	<p>Broad-specificity mitochondrial nucleoside phosphate kinase involved in cellular nucleotide homeostasis by catalyzing nucleoside- phosphate interconversions (PubMed:<a href="#">19073142</a>, PubMed:<a href="#">19766732</a>, PubMed:<a href="#">23416111</a>, PubMed:<a href="#">24767988</a>). Similar to other adenylate kinases, preferentially catalyzes the phosphorylation of the nucleoside monophosphate AMP with ATP as phosphate donor to produce ADP (PubMed:<a href="#">19766732</a>). Phosphorylates only AMP when using GTP as phosphate donor (PubMed:<a href="#">19766732</a>). In vitro, can also catalyze the phosphorylation of CMP, dAMP and dCMP and use GTP as an alternate phosphate donor (PubMed:<a href="#">19766732</a>, PubMed:<a href="#">23416111</a>). Moreover, exhibits a diphosphate kinase activity, producing ATP, CTP, GTP, UTP, TTP, dATP, dCTP and dGTP from the corresponding diphosphate substrates with either ATP or GTP as phosphate donors (PubMed:<a href="#">23416111</a>). Plays a role in controlling cellular ATP levels by regulating phosphorylation and activation of the energy sensor protein kinase AMPK (PubMed:<a href="#">24767988</a>, PubMed:<a href="#">26980435</a>). Plays a protective role in the cellular response to oxidative stress (PubMed:<a href="#">19130895</a>, PubMed:<a href="#">23474458</a>, PubMed:<a href="#">26980435</a>).</p>
Cellular Location	Mitochondrion matrix {ECO:0000255 HAMAP- Rule:MF_03170, ECO:0000269 PubMed:11485571, ECO:0000269 PubMed:19766732, ECO:0000269 PubMed:26980435}
Tissue Location	Highly expressed in kidney, moderately expressed in heart and liver and

weakly expressed in brain

## Images



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