

#2106 Store at -20°C

Hexokinase II Antibody

Cell Signaling
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For Research Use Only. Not for Use in Diagnostic Procedures.

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|---------------------|---------------------|----------------------------|------------------|-------------------|------------------------|-------------------------|
| Applications: WB | Reactivity: H Mk | Sensitivity: Endogenous | MW (kDa): 102 | Source: Rabbit | UniProt ID: #P52789 | Entrez-Gene Id: 3099 |
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| Product Usage Information | Application Western Blotting | Dilution 1:1000 |
| Storage | Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody. | |
| Specificity / Sensitivity | Hexokinase II Antibody detects endogenous levels of total hexokinase (isoform II) protein. | |
| Source / Purification | Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human hexokinase (isoform II). Antibodies are purified by protein A and peptide affinity chromatography. | |
| Background | Hexokinase catalyzes the conversion of glucose to glucose-6-phosphate, the first step in glycolysis. Four distinct mammalian hexokinase isoforms, designated as hexokinase I, II, III, and IV (glucokinase), have been identified. Hexokinases I, II, and III are associated with the outer mitochondrial membrane and are critical for maintaining an elevated rate of aerobic glycolysis in cancer cells (Warburg Effect) (1) in order to compensate for the increased energy demands associated with rapid cell growth and proliferation (2,3). | |
| Background References | 1. WARBURG, O. (1956) <i>Science</i> 123, 309-14. 2. Semenza, G.L. (2000) <i>Crit Rev Biochem Mol Biol</i> 35, 71-103. 3. Smith, T.A. (2000) <i>Br J Biomed Sci</i> 57, 170-8. | |

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| Species Reactivity | Species reactivity is determined by testing in at least one approved application (e.g., western blot). |
| Western Blot Buffer | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight. |
| Applications Key | WB: Western Blotting |
| Cross-Reactivity Key | H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected |
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