

Product Specification Sheet

**Hexokinase 3 (HXK3/HK3) Antibodies**

Cat. # HXK33-P	<b>Mouse</b> HXK-3 control peptide # 2	<b>SIZE:</b> 100 ug
Cat. # HXK33-A	<b>Rabbit</b> Anti-Mouse HXK-3 IgG # 2 (Aff pure)	<b>SIZE:</b> 100 ug

Hexokinase catalyzes the first step of several metabolic pathways by converting D-hexose to D-hexose-6-P. Hexokinase is an allosteric enzyme inhibited by its products glucose-6-phosphate. At least 4 related hexokinase isoforms (**HXKI-III; HXK-IV also known as Glucokinase**) have been cloned and characterized. Hexokinases (~100kDa for HXK1-III; HXKIV lacks the N-terminal domains and is ~50 kDa) are outer mitochondrial membrane proteins. The N-terminus, containing the mitochondrial target sequence, and the C-terminal has high sequence homology among various isoforms. The catalytic activity is associated with the C-terminus and other regulatory functions are controlled by the N-terminus. HXK3 (chromosome 5) has a more limited distribution that includes white cells and shows a genetically determined polymorphism. It is also expressed in lung and liver. It is 50% identical to HXK1.

**Stability:** 6-12 months at -20°C or below.  
**Shipping:** 4°C for solutions and room temp for powder

**Recommended Usage**

**Western Blotting** (1-10 ug/ml for affinity pure antibody using Chemiluminescence technique).

**ELISA:** Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

**Histochemistry & Immunofluorescence:** Not tested. We recommend the use of affinity purified antibody at 1-20 ug/ml in paraformaldehyde fixed sections of tissues.

**Source of Antigen, and Antibodies**

<b>Antigen</b>	A 17-aa peptide of Mouse HXK3 (1); <b>Designated (HXK33-P or control peptide).</b> <b>Epitope location</b> ~ N-terminus
<b>Ab Host/type</b>	Rabbit, Polyclonal IgG, purified over antigen-agarose (Cat # HXK33-A)
<b>2-Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>-ve control</b>	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Specificity & Cross-reactivity**

Mouse HXK33-P control peptide is 94% conserved in rat and human, HXK3 protein sequences. No significant homology of HXK33-P is seen with HXK1, 2-4. Antibody crossreactivity in various species is not known. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at: the web site).

**General References:** Palma F et al (1996) Mol Cell Biol. 155, 23-29; SCHWAB DA et al (1991) Arch biochem Biophys. 285, 365-370; Colosimo, A. et al (1996) Cytogenet. Cell Genet. 74: 187-188; . Furuta, H.(1996) Genomics 36: 206-209; Povey, et al (1975) Ann. Hum. Genet. 38: 407-415

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**  
100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**  
100 ug/100 ul solution lyophilized powder  
Supplied in Buffer: PBS pH 7.5,  
**Reconstitute powder in PBS at 1 mg/ml.**

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20°C and powder at 4°C or -20°C..

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

\*This product is for In vitro research use only.

**Related material available from ADI**

Antibodies HXKI-III;

HXK33-A-P 71226S

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