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Datasheet for 200-4159

Hexokinase Antibody

Overview

Description:	Anti-Hexokinase (Yeast) (RABBIT) Antibody (BULK ORDER) - 200-4159
Item No.:	200-4159
Size:	50 mg
Applications:	ELISA, WB
Reactivity:	Hexokinase (Yeast)
Host Species:	Rabbit

Product Details

Background:	Anti-Hexokinase antibody detects hexokinase. Hexokinase is an enzyme that phosphorylates hexoses (six-carbon sugars), forming hexose phosphate. In most organisms, glucose is the most important substrate of hexokinases, and glucose-6-phosphate the most important product. Anti-Hexokinase Antibody is ideal for investigators involved in Cell Signaling, Neuroscience and Signal Transduction research.
Synonyms:	rabbit anti-Hexokinase Antibody, DKFZp686M1669 antibody, Hexokinase 2 antibody, Hexokinase 2 muscle antibody, Hexokinase type II antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	HXK2
Reactivity:	Hexokinase (Yeast)
Immunogen Type:	Native Protein
Immunogen:	Anti-Hexokinase Antibody was produced by repeated immunizations with yeast hexokinase protein.

Purity/Specificity:	Anti-Hexokinase is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum as well as purified and partially purified Hexokinase [Yeast]. Cross reactivity against Hexokinase from other tissues and species may occur but have not been specifically determined.
Relevant Links:	• UniProtKB - P04806 • NCBI - CAA96973.1 • UniProtKB - P04807 • GeneID - 852639

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-Hexokinase Antibody has been tested by western blotting and for ELISA and is suitable for IHC. Researchers should determine optimal titers for applications that are not stated below.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:565,000
IHC:	User Optimized
WB:	1:500 - 1:2,000

Formulation

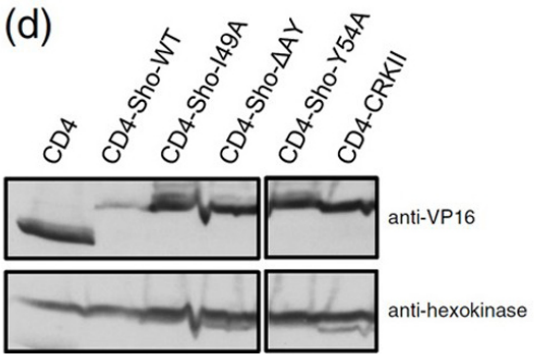
Physical State:	Lyophilized
Concentration:	10.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	5.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

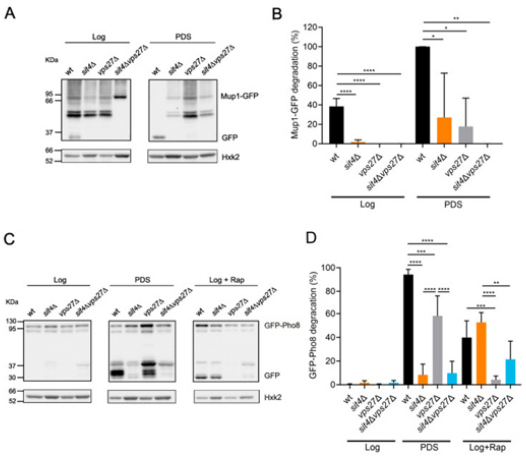
Shipping Condition:	Ambient

Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

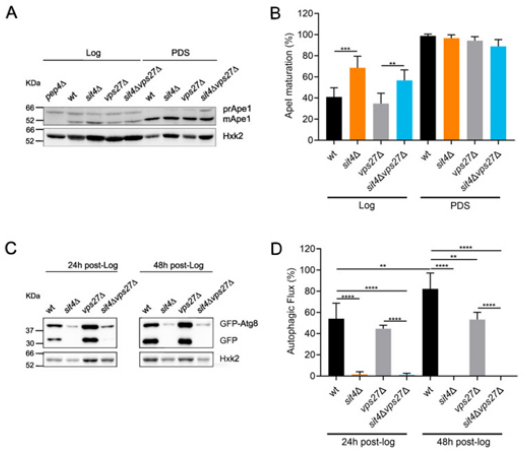
Images



Western Blot
(d) Whole cell lysates of log phase cells from (b) were electrophoresed and transferred onto nitrocellulose membrane, and the expression of bait proteins or an unrelated protein (hexokinase as a loading control) was determined using anti-VP16 (for MYTH-tagged baits) or anti-hexokinase antibodies. Fig 4. PMID: 25644660

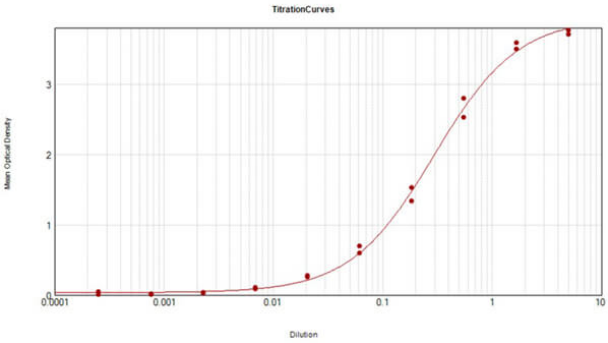


Western Blot
The induction of the MVB pathway and microautophagy at the PDS phase is Sit4-dependent. (A) Immunodetection of Mup1-GFP and GFP in protein extracts from cells expressing pRS416-MUP1-GFP grown in SC medium. Hxk2 was used as a loading control. A representative blot is shown. (B) The induction of the MVB pathway (free GFP/(Mup1-GFP + GFP) ratio) was evaluated at the Log and PDS (24 h after Log) phases. Values are the mean ± SD (n = 3); * $p < 0.05$, ** $p < 0.01$, **** $p < 0.0001$; one-way ANOVA. (C) Immunodetection of GFP-Pho8 and GFP in protein extracts from cells expressing pRS426-GFP-PHO8. Hxk2 was used as a loading control. A representative blot is shown. (D) The induction of microautophagy (free GFP/(GFP + GFP-Pho8) ratio) was evaluated at the Log and PDS (24 h after Log) phases. Cells treated with rapamycin were used as a positive control. Values are the mean ± SD (n = 3); ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$; one-way ANOVA. Fig 3. PMID: 38667270



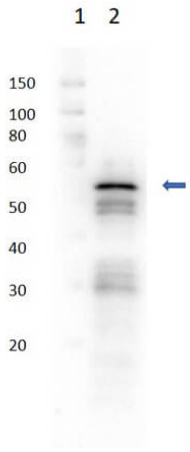
Western Blot

SIT4 deletion compromises autophagy and induces the Cvt pathway at the Log phase in a Vps27-independent manner. (A) Processing of the proenzyme ApeI (prApeI) to the mature enzyme (mApeI) was analyzed at the Log and PDS (24 h after Log) phases. Hxk2 was used as a loading control. The pep4Δ cells (unable to process ApeI) were used as control. A representative blot is shown. (B) Quantification of ApeI maturation. Values are the mean ± SD (n = 4); ** $p < 0.01$, *** $p < 0.001$; one-way ANOVA. (C) Immunodetection of GFP-Atg8 and GFP in cells expressing pRS416-GFP-ATG8. Hxk2 was used as a loading control. A representative blot is shown. (D) The autophagic flux (free GFP/(GFP + GFP-Atg8) ratio) was evaluated at 24 h and 48 h after the Log phase. Values are the mean ± SD (n = 3); ** $p < 0.01$, **** $p < 0.0001$; one-way ANOVA. Fig 5. PMID: 38667270



ELISA

ELISA Results of Rabbit Anti-Hexokinase Antibody tested against purified Hexokinase. Each well was coated in duplicate with 1.0 µg of Hexokinase (Yeast). The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using HRP Conjugate Stabilizer (p/n MB-076), Goat Anti-Rabbit IgG HRP conjugated (p/n 611 -103-122) and TMB substrate (p/n TMBE-1000).



Western Blot

Western Blot of Rabbit Anti-Hexokinase Antibody. Lane 1: Molecular Weight Marker. Lane 2: Hexokinase. Primary Antibody: Anti-Hexokinase at 1:1000 overnight in 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG HRP (p/n 611-103-122) at 1:40,000 for 30 mins at RT. Block: BlockOut Buffer (p/n MB-073) for 30 mins at RT. Expect MW: ~54kDa.

References

- Martins TS et al. Sit4 Genetically Interacts with Vps27 to Regulate Mitochondrial Function and Lifespan in Saccharomyces cerevisiae. *Cells.* (2024)
- Lam, MHY et al. A Comprehensive Membrane Interactome Mapping of Sho1p Reveals Fps1p as a Novel Key Player in the Regulation of the HOG Pathway in S. cerevisiae. *Journal of Molecular Biology* (2015)

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