

Datasheet for 200-4159S

Hexokinase Antibody

Overview

Description:	Anti-Hexokinase (Yeast) (RABBIT) Antibody - 200-4159S
Item No.:	200-4159S
Size:	25 µL
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](#)
- [UniProtKB - P04807](#)
- [NCBI - CAA96973.1](#)
- [GenelD - 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:	1:3,000 - 1:10,000
IHC:	User Optimized
WB:	1:1,000 - 1:5,000

Formulation

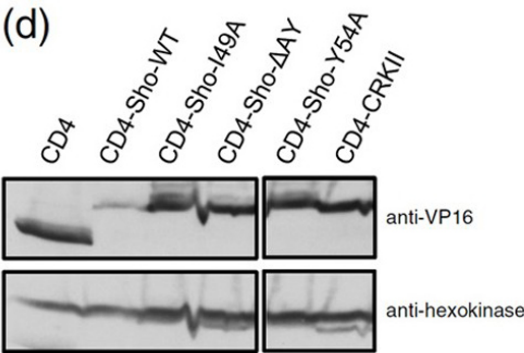
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

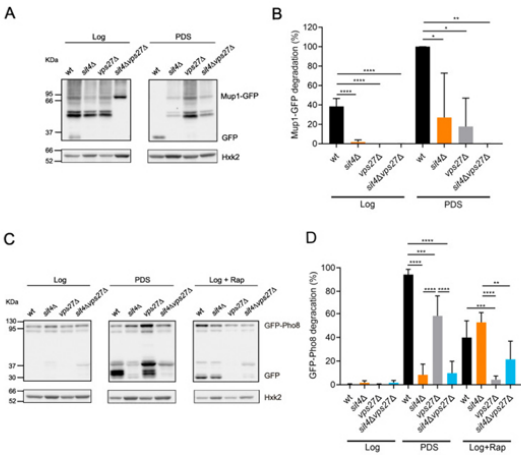
Shipping Condition:	Dry Ice
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Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

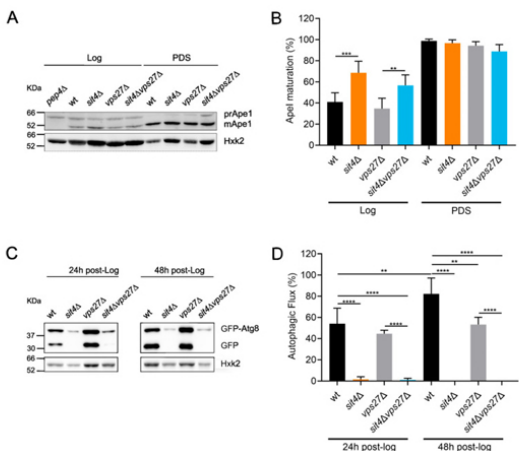
Images



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

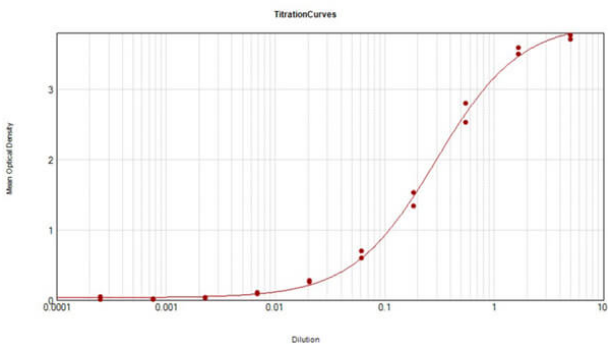


Western Blot

SIT4 deletion compromises autophagy and induces the Cvt pathway at the Log phase in a Vps27-independent manner. (A) Processing of the proenzyme Apoptosis (prApel) to the mature enzyme (mApel) 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 Apoptosis) were used as control. A representative blot is shown. (B) Quantification of Apoptosis 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

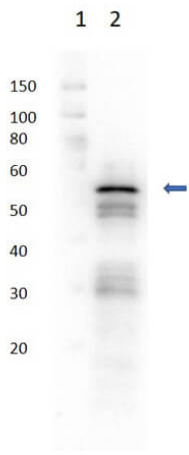
ELISA

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)

Disclaimer

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