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Datasheet for ABIN3042420 anti-GCLC antibody (AA 437-637)

4 Images

2 Publications



Overview

Quantity:	100 µg
Target:	GCLC
Binding Specificity:	AA 437-637
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GCLC antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))
Product Details	
Purpose:	Rabbit IgG polyclonal antibody for Glutamatecysteine ligase catalytic subunit(GCLC) detection. Tested with WB, IHC-P in Human,Rat.
Purpose: Immunogen:	Rabbit IgG polyclonal antibody for Glutamatecysteine ligase catalytic subunit(GCLC) detection. Tested with WB, IHC-P in Human,Rat.E.coli-derived human GCLC recombinant protein (Position: E437-N637). Human GCLC shares 94% amino acid (aa) sequence identity with both mouse and rat GCLC.
Purpose: Immunogen: Isotype:	Rabbit IgG polyclonal antibody for Glutamatecysteine ligase catalytic subunit(GCLC) detection. Tested with WB, IHC-P in Human,Rat.E.coli-derived human GCLC recombinant protein (Position: E437-N637). Human GCLC shares 94% amino acid (aa) sequence identity with both mouse and rat GCLC.IgG
Purpose: Immunogen: Isotype: Cross-Reactivity (Details):	Rabbit IgG polyclonal antibody for Glutamatecysteine ligase catalytic subunit(GCLC) detection. Tested with WB, IHC-P in Human,Rat.E.coli-derived human GCLC recombinant protein (Position: E437-N637). Human GCLC shares 94% amino acid (aa) sequence identity with both mouse and rat GCLC.IgGNo cross reactivity with other proteins.
Purpose: Immunogen: Isotype: Cross-Reactivity (Details): Characteristics:	Rabbit IgG polyclonal antibody for Glutamatecysteine ligase catalytic subunit(GCLC) detection. Tested with WB, IHC-P in Human,Rat.E.coli-derived human GCLC recombinant protein (Position: E437-N637). Human GCLC shares 94% amino acid (aa) sequence identity with both mouse and rat GCLC.IgGNo cross reactivity with other proteins.Rabbit IgG polyclonal antibody for Glutamatecysteine ligase catalytic subunit(GCLC) detection. Tested with WB, IHC-P in Human,Rat.Gene Name: glutamate-cysteine ligase, catalytic subunit Protein Name: Glutamatecysteine ligase catalytic subunit

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Target Details		
Target:	GCLC	
Alternative Name:	GCLC (GCLC Products)	
Background:	GCLC, also named Glutamatecysteine ligase catalytic subunit, is an enzyme that in humans is encoded by the GCLC gene. Glutamate-cysteine ligase, also known as gamma-glutamylcysteine synthetase is the first rate limiting enzyme of glutathione synthesis. The enzyme consists of two subunits, a heavy catalytic subunit and a light regulatory subunit. The gene encoding the catalytic subunit encodes a protein of 367 amino acids with a calculated molecular weight of 72.773 kDa and maps to chromosome 6p12.1. Deficiency of gamma-glutamylcysteine synthetase in human is associated with enzymopathic hemolytic anemia.	
	Synonyms: EC 6.3.2.2 antibody Gamma ECS antibody Gamma GCS antibody Gamma glutamylcysteine synthetase antibody GCLC antibody GCLM antibody GCS antibody GCS Heavy Chain antibody GLCL antibody GLCLC antibody GLCLR antibody Glutamate cysteine ligase catalytic subunit antibody Glutamate cysteine ligase (gamma glutamylcysteine synthetase) regulatory (30.8kD) antibody Glutamate cysteine ligase catalytic subunit antibody Glutamate cysteine ligase regulatory protein antibody Glutamate cysteine ligase regulatory subunit antibody Glutamate-cysteine ligase catalytic subunit antibody GSC light chain antibody GSH1_HUMAN antibody	
Gene ID:	2729	
UniProt:	P48506	
Pathways:	Cell RedoxHomeostasis	
Application Details		
Application Notes:	 WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, The detection limit for GCLC is approximately 0.2 ng/lane under reducing conditions. IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users. 	
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).	

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Application Details

Restrictions:

For Research Use only

Handling

Format:	Lyophilized	
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 μ g/mL.	
Concentration:	500 µg/mL	
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.	
Preservative:	Sodium azide	
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.	
Handling Advice:	Avoid repeated freezing and thawing.	
Storage:	4 °C/-20 °C	
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month.	
	It can also be aliquotted and stored frozen at -20 $^\circ\mathrm{C}$ for a longer time. Avoid repeated freezing	
	and thawing.	

Publications

Product cited in:Jia, Ma, Lv, Ma, Xu, Yang, Tian, Wang, Sun, Xu, Fu, Zhao: "Oestrogen and parathyroid hormonealleviate lumbar intervertebral disc degeneration in ovariectomized rats and enhance Wnt/β-
catenin pathway activity." in: Scientific reports, Vol. 6, pp. 27521, (2018) (PubMed).

Jia, Jiang, Liu, Wang, Zhu, Zhu, Liu, Zhong, Xie, Huang, Jia, Li, Liu, Zuo, Cheng, Dai, Ren: "Effects of three-dimensional collagen scaffolds on the expression profiles and biological functions of glioma cells." in: **International journal of oncology**, Vol. 52, Issue 6, pp. 1787-1800, (2018) (PubMed).

Ding, Teng, Fan, Zhao: "The Association Between Modic Changes of Lumbar Endplates and Spontaneous Absorption of Herniated Intervertebral Discs." in: **Cell biochemistry and biophysics**, Vol. 71, Issue 3, pp. 1357-63, (2016) (PubMed).

Yan, Tian, Wang, Cheng, Xu, Song, Zhang, Zhang: "Age dependent changes in cartilage matrix, subchondral bone mass, and estradiol levels in blood serum, in naturally occurring

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Xu, Zhang, Xu, Guo, Wang, Wu, Wang, Luo, Zhou: "Antiphotoaging effect of conditioned medium of dedifferentiated adipocytes on skin in vivo and in vitro: a mechanistic study." in: **Stem cells and development**, Vol. 24, Issue 9, pp. 1096-111, (2015) (PubMed).

Images



Immunohistochemistry

Image 1. Anti- GCLC antibody, IHC(P) IHC(P): Human Mammary Cancer Tissue

Immunohistochemistry

Image 2. Anti- GCLC antibody, IHC(P) IHC(P): Human Lung Cancer Tissue

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130KD- 1 2 3 4 5 6 7	Western Blotting
400KD -	Image 3. Anti- GCLC antibody, Western blotting All lanes:
100KD -	Anti GCLC at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at
70KD	50ug Lane 2: Rat Cardiac Muscle Tissue Lysate at 50ug
55KD -	Lane 3: HELA Cell Lysate at 40ug Lane 4: PC-12 Whole Cell
3310	Lysate at 40ug Lane 5: NRK Whole Cell Lysate at 40ug Lane
35KD-	6: HEPA Whole Cell Lysate at 40ug Lane 7: A549 Whole Cell
	Lysate at 40ug Predicted bind size: 72KD Observed bind
25KD -	size: 72KD

Please check the product details page for more images. Overall 4 images are available for ABIN3042420.