




Rabbit Anti-GAPDH-Loading Control antibody

SL2188R

Product Name:	GAPDH-Loading Control
Chinese Name:	3-磷酸甘油醛脱氢酶抗体
Alias:	38 kDa BFA-dependent ADP-ribosylation substrate; Aging-associated gene 9 protein; BARS-38; cb609; EC 1.2.1.12; G3PD; G3PDH; GAPD; Glyceraldehyde 3 phosphate dehydrogenase; Glyceraldehyde 3 phosphate dehydrogenase liver; Glyceraldehyde 3 phosphate dehydrogenase muscle; KNC-NDS6; MGC102544; MGC102546; MGC103190; MGC103191; MGC105239; MGC127711; MGC88685; OCAS, p38 component; OCT1 coactivator in S phase, 38-KD component; wu:fb33a10.
文献引用 	<p>Specific References(11)SL2188R has been referenced in 11 publications.</p> <p>[IF=2.14]Song, Yong, et al. "Increased expression of the pluripotency markers sex-determining region Y-box 2 and Nanog homeobox in ovarian endometriosis." <i>Reproductive Biology and Endocrinology</i> 12.1 (2014): 42.WB;Human. PubMed:24884521</p> <p>[IF=0.99]Shao, Guangcan, et al. "Construction of the plasmid coding for the expression of the EGFP?M?IL?2 (88Arg, 125Ala) fusion protein and the anti?tumor effects exerted by the fusion protein in HeLa-60 cells." <i>Oncology Letters</i>.WB;Human. PubMed:26137137</p> <p>[IF=1.48]Hou, Yu Sen, et al. "Lipopolysaccharide pretreatment inhibits LPS-induced human umbilical cord mesenchymal stem cell apoptosis via upregulating the expression of cellular FLICE-inhibitory protein." <i>Molecular Medicine Reports</i>.WB;Human. PubMed:25955291</p> <p>[IF=2.30]Zhang, Xiangliang, et al. "MicroRNA-216a enhances the radiosensitivity of pancreatic cancer cells by inhibiting beclin-1-mediated autophagy." <i>Oncology</i></p>

Reports.**WB**;

[PubMed:26134156](#)

[IF=2.09]Tan, Shifan, et al. "miR-409-3p sensitizes colon cancer cells to oxaliplatin by inhibiting Beclin-1-mediated autophagy." International Journal of Molecular Medicine.**WB**;

[PubMed:26935807](#)

[IF=1.55]Jia, Lianqun, et al. "Effects of Tanshinone IIA on the modulation of miR-33a and the SREBP2/Pcsk9 signaling pathway in hyperlipidemic rats." Molecular Medicine Reports (2016).**WB**;**Rat**.

[PubMed:27082100](#)

[IF=2.11]Yan, Lijie, et al. "Regulator of calcineurin 1-1L protects cardiomyocytes against hypoxia-induced apoptosis via mitophagy." Journal of cardiovascular pharmacology 64.4 (2014): 310-317.**WB**;**Human**.

[PubMed:24887685](#)

[IF=1.28]YIN, Zhi-hong, et al. "Expression and tissue distribution analysis of Angiotensin II in sheep (*Ovis aries*) skins associated with white and black coat colors." Journal of Zhejiang University Science B 1 (2016).**WB**;**Sheep**.

[PubMed:0](#)

[IF=4.38]Sun, Pengchao, et al. "SL2B aptamer and folic acid dual-targeting DNA nanostructures for synergic biological effect with chemotherapy to combat colorectal cancer." International Journal of Nanomedicine 12 (2017): 2657.**WB**;**Human**.

[PubMed:28435250](#)

[IF=2.49]Wang, Hong, et al. "Osthole shows the potential to overcome P-glycoprotein-mediated multidrug resistance in human myelogenous leukemia K562/ADM cells by inhibiting the PI3K/Akt signaling pathway." Oncology reports 35.6 (2016): 3659-3668.**WB**;**Human**.

[PubMed:27109742](#)

[IF=4.46]Yan, Lijie, et al. "Regulator of calcineurin 1-1L protects cardiomyocytes against hypoxia-induced apoptosis via mitophagy." Journal of cardiovascular pharmacology 64.4 (2014): 310-317.**WB**;**Human**.

[PubMed:24887685](#)

Organism Species:

Rabbit

Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Rabbit,
Applications:	WB=1:2000-10000 IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	37kDa
Cellular localization:	The nucleus cytoplasmic The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	GAPDH protein of rabbit:
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>Glyceraldehyde 3 phosphate dehydrogenase (GAPDH) is well known as one of the key enzymes involved in glycolysis. As well as functioning as a glycolytic enzyme in cytoplasm, recent evidence suggests that mammalian GAPDH is also involved in a great number of intracellular processes such as membrane fusion, microtubule bundling, phosphotransferase activity, nuclear RNA export, DNA replication, and DNA repair. During the last decade a lot of data appeared concerning the role of GAPDH in different pathologies including prostate cancer progression, programmed neuronal cell death, age related neuronal diseases, such as Alzheimer's and Huntington's disease. GAPDH is expressed in all cells. It is constitutively expressed in almost all tissues at high levels. There are however some physiological factors such as hypoxia and diabetes that increase GAPDH expression in certain cell types. GAPDH molecule is composed of four 38kDa subunits.</p> <p>Function: Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis. Nuclear functions are probably due to the nitrosylase activity that mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2 and PRKDC. Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by converting D-glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate.</p> <p>Subunit: Homotetramer. Interacts with TPPP; the interaction is direct. Interacts (when S-nitrosylated) with SIAH1; leading to nuclear translocation. Interacts with</p>

RILPL1/GOSPEL, leading to prevent the interaction between GAPDH and SIAH1 and prevent nuclear translocation. Interacts with EIF1AD, USP25, PRKCI and WARS.

Subcellular Location:

Cytoplasm, cytosol. Nucleus. Cytoplasm, perinuclear region. Membrane.

Note=Translocates to the nucleus following S-nitrosylation and interaction with SIAH1, which contains a nuclear localization signal. Postnuclear and Perinuclear regions.

Post-translational modifications:

S-nitrosylation of Cys-152 leads to interaction with SIAH1, followed by translocation to the nucleus.

ISGylated (Probable).

Sulfhydrylation at Cys-152 increases catalytic activity.

Similarity:

Belongs to the glyceraldehyde-3-phosphate dehydrogenase family.

SWISS:

P04406

Gene ID:

100009074

Database links:

[Entrez Gene: 493876](#)Cat

[Entrez Gene: 374193](#)Chicken

[Entrez Gene: 403755](#)Dog

[Entrez Gene: 2597](#)Human

[Entrez Gene: 100042025](#)Mouse

[Entrez Gene: 14433](#)Mouse

[Entrez Gene: 396823](#)Pig

[Entrez Gene: 100009074](#)Rabbit

[Entrez Gene: 24383](#)Rat

[Entrez Gene: 685186](#)Rat

[Entrez Gene: 380259](#)Xenopus laevis

[Entrez Gene: 448356](#)Xenopus tropicalis

[Entrez Gene: 317743](#)Zebrafish

[Omin: 138400](#)Human

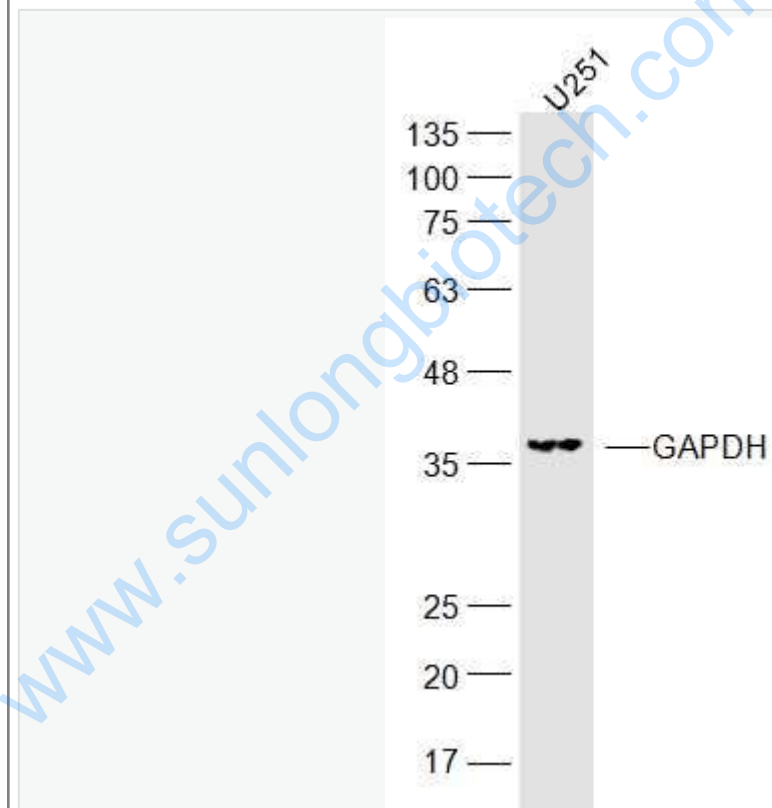
[SwissProt: Cat](#)
[SwissProt: P00356](#)Chicken
[SwissProt: Q28259](#)Dog
[SwissProt: P70685](#)Guinea pig
[SwissProt: P04406](#)Human
[SwissProt: P16858](#)Mouse
[SwissProt: P00355](#)Pig
[SwissProt: P46406](#)Rabbit
[SwissProt: P04797](#)Rat
[SwissProt: P51469](#)Xenopus laevis
[SwissProt: Q5XJ10](#)Zebrafish
[Unigene: 544577](#)Human
[Unigene: 592355](#)Human
[Unigene: 598320](#)Human
[Unigene: 304088](#)Mouse
[Unigene: 309092](#)Mouse
[Unigene: 317779](#)Mouse
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[Unigene: 414470](#)Mouse
[Unigene: 458138](#)Mouse
[Unigene: 458416](#)Mouse
[Unigene: 475698](#)Mouse
[Unigene: 129558](#)Rat
[Unigene: 91450](#)Rat
[Unigene: 995](#)Xenopus laevis
[Unigene: 35640](#)Zebrafish

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

甘油醛-3-磷酸脱氢酶(Glyceraldehyde 3 phosphate dehydrogenase, GAPDH)是糖酵解(glycolysis)过程中的关键酶。除了在胞质中作为糖酵解的酶以外,有证据表明哺乳动物细胞中的GAPDH参与了多种胞内生化过程,包括膜融合(membrane fusion)、微管成束(microtubule bundling)、磷酸转移酶(phosphotransferase)激活、核内RNA出核、DNA复制与DNA修复。一些生理因素,诸如低氧(hypoxia)和尿糖(diabetes),可以增加GAPDH在特定细胞中的表达。GAPDH存在于几乎所有的组织中,以高水平持续表达。GAPDH(甘油醛-3-磷酸脱氢酶)是参与糖酵解的一种关键酶,由4个30-40kDa的亚基组成。

Picture:



Sample:

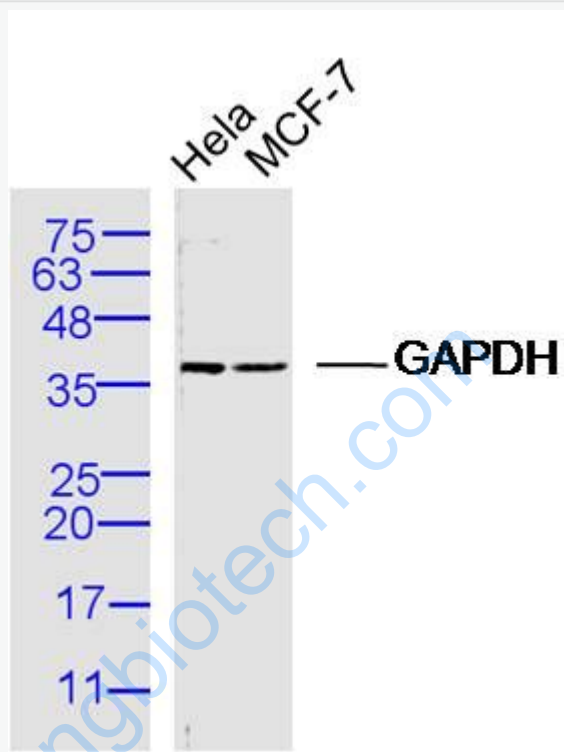
U251(Human) Cell Lysate at 30 ug

Primary: Anti-GAPDH (SL2188R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 37 kD



Sample:

HeLa Cell (Human) Lysate at 40 ug

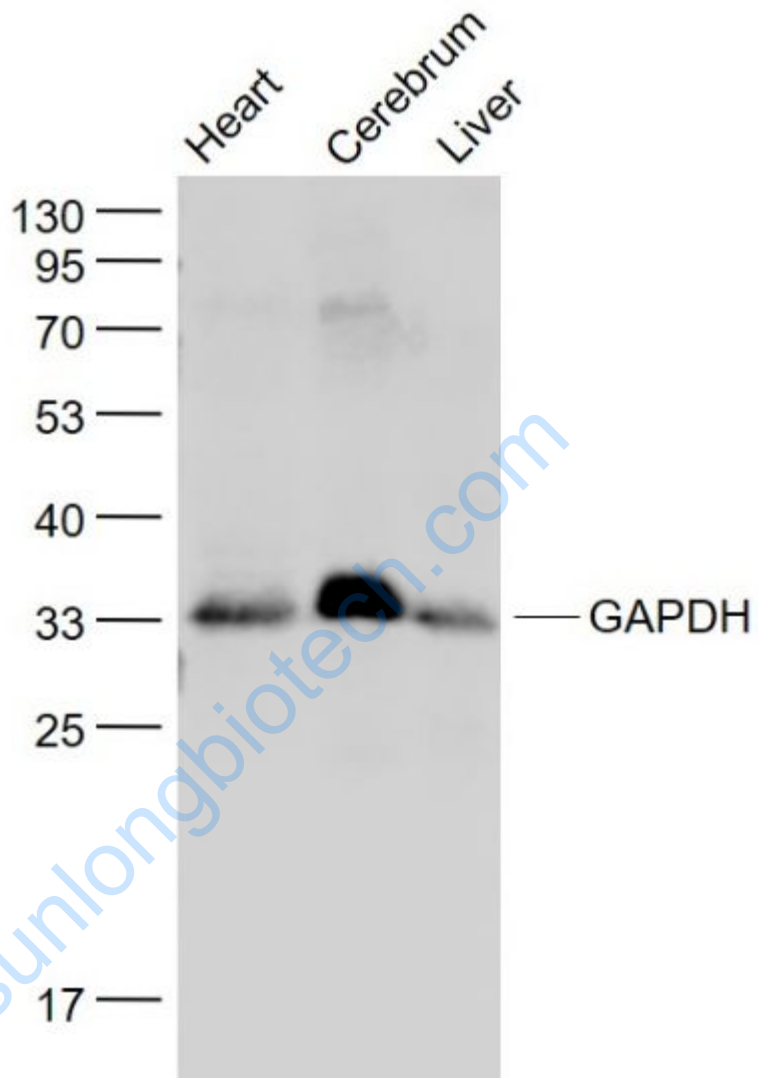
MCF-7 Cell (Human) Lysate at 40 ug

Primary: Anti- GAPDH (SL2188R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 37 kD



Sample:

Heart (Rat) Lysate at 40 ug

Cerebrum (Rat) Lysate at 40 ug

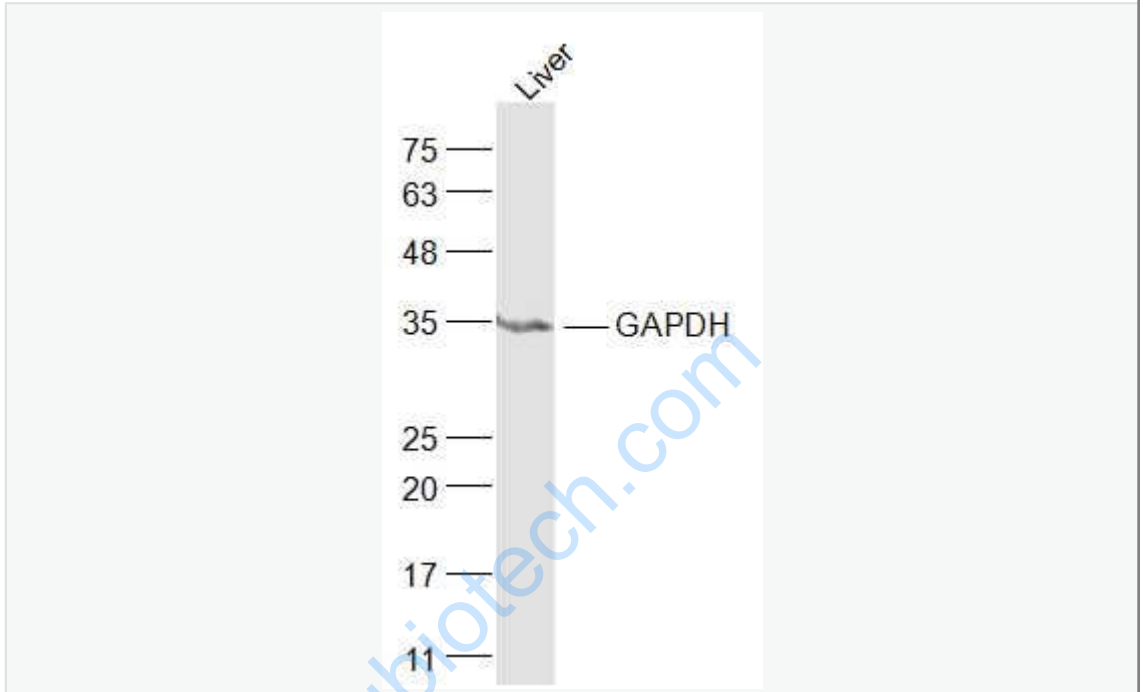
Liver (Mouse) Lysate at 40 ug

Primary: Anti- GAPDH (SL2188R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 35 kD



Sample:

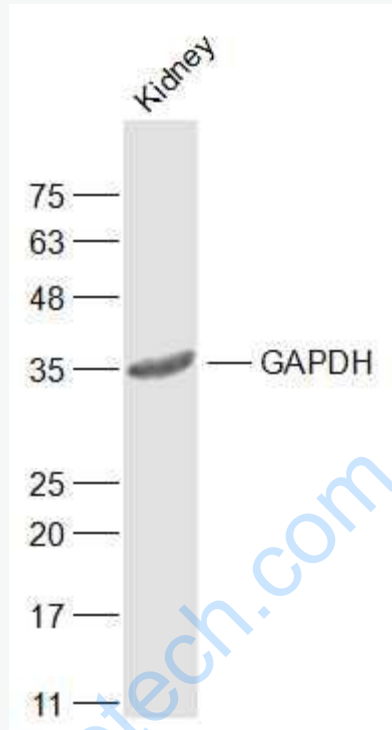
Liver(Rat) Lysate at 40 ug

Primary: Anti-GAPDH (SL2188R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 35 kD



Sample:

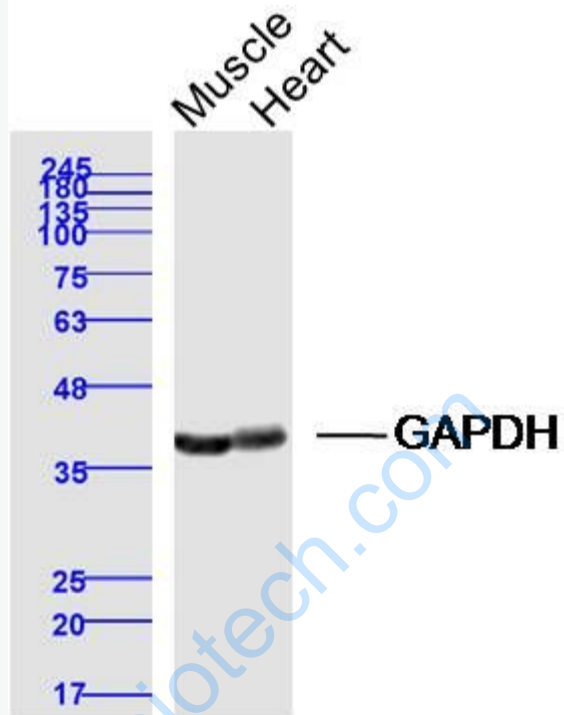
Kidney (Mouse) Lysate at 40 ug

Primary: Anti-GAPDH (SL2188R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 35 kD



Sample:

Muscle (Rat) Lysate at 40 ug

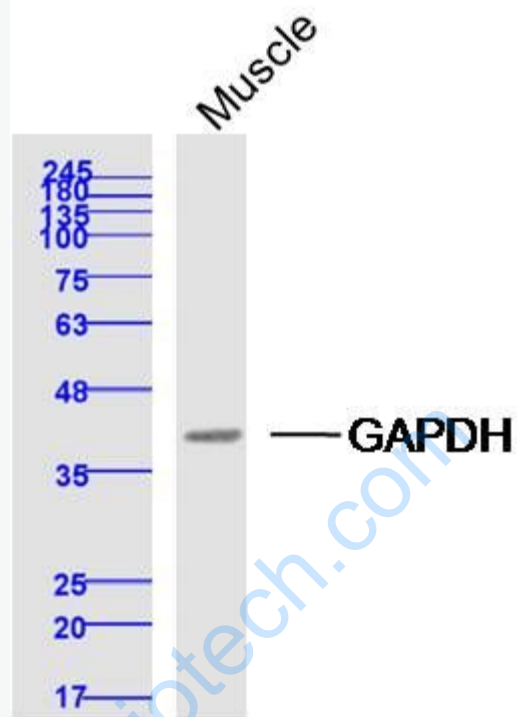
Heart (Rat) Lysate at 40 ug

Primary: Anti- GAPDH (SL2188R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 37 kD



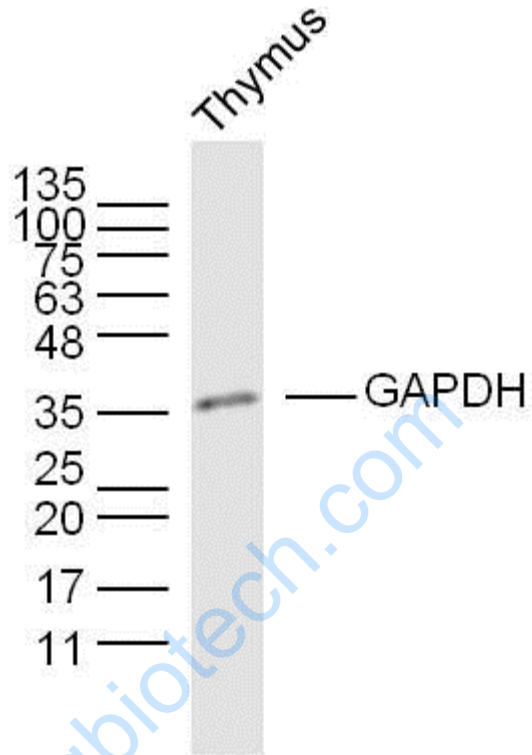
Sample: Muscle (Mouse) Lysate at 40 ug

Primary: Anti- GAPDH (SL2188R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

Observed band size: 37 kD



Sample:

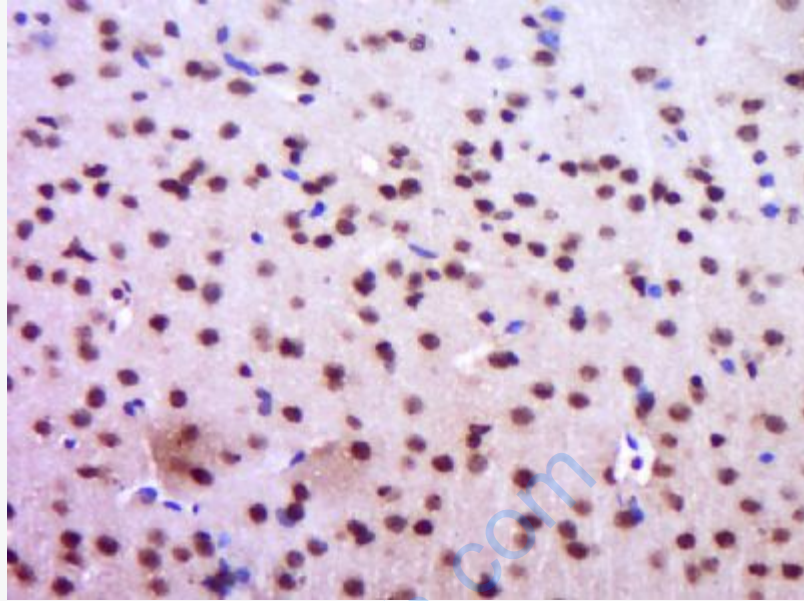
Thymus (Mouse) Lysate at 40 ug

Primary: Anti- GAPDH(SL2188R)at 1/300 dilution

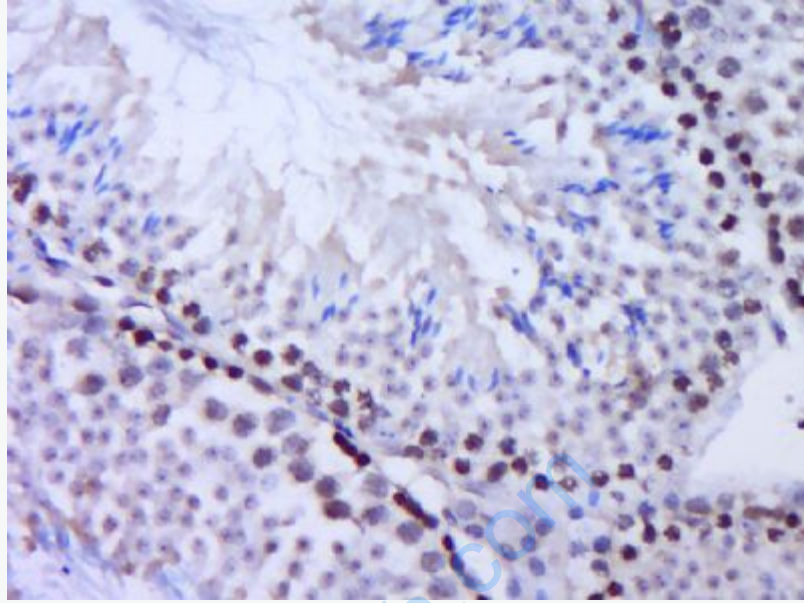
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37 kD

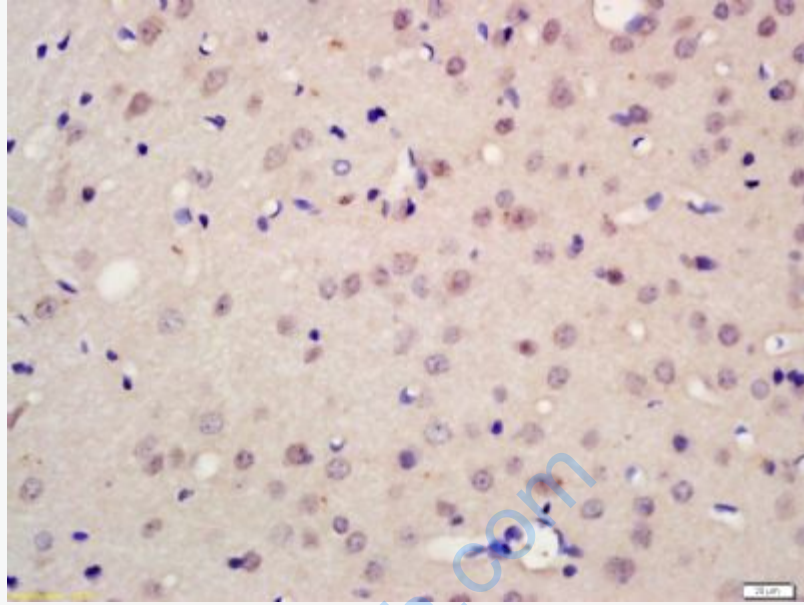
Observed band size: 37 kD



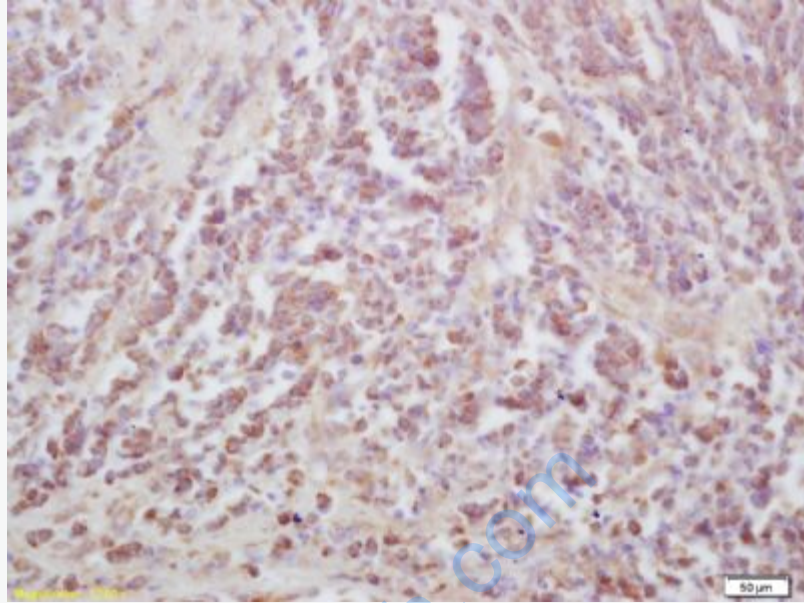
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GAPDH) Polyclonal Antibody, Unconjugated (SL2188R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GAPDH) Polyclonal Antibody, Unconjugated (SL2188R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-GAPDH Polyclonal Antibody, Unconjugated(SL2188R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-GAPDH Polyclonal Antibody, Unconjugated(SL2188R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining