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Rabbit Anti-Cytochrome C antibody

SL0013R

Product Name:	Cytochrome C
Chinese Name:	细胞色素C抗体
Alias:	CytC; CYC; CYCS; Cytochrome c somatic; HCS; CYC_HUMAN; Cytochrome-c; MSA06; THC4.
文献引用 PubMed :	**Specific References(14)**|SL0013R has been referenced in 14 publications. **[IF=2.94]**Wang, Shuhua, et al. "μ-Calpain mediates hippocampal neuron death in rats after lithium–pilocarpine-induced status epilepticus." Brain research bulletin 76.1 (2008): 90-96.**WB;Rat**. PubMed:18395616 **[IF=3.12]**Jiang, H-Q., et al. "Guanabenz Delays the Onset of Disease Symptoms, Extends Lifespan, Improves Motor Performance and Attenuates Motor Neuron Loss in the SOD1 G93A Mouse Model of Amyotrophic Lateral Sclerosis." Neuroscience (2014).**WB;Mouse**. PubMed:24699224 **[IF=2.55]**Chen, Chengzhi, et al. "Resveratrol protects against arsenic trioxide-induced oxidative damage through maintenance of glutathione homeostasis and inhibition of apoptotic progression." Environmental and Molecular Mutagenesis (2014).**WB;Human**. PubMed:25339131 **[IF=1.61]**Gu, Shiyan, et al. "Resveratrol Synergistically Triggers Apoptotic Cell Death with Arsenic Trioxide via Oxidative Stress in Human Lung Adenocarcinoma A549 Cells." Biological trace element research (2014): 1-12.**WB;Human**. PubMed:25431299

[IF=3.53]Fang C, Zhang J, Qi D, Fan X, Luo J, et al. (2014) Evodiamine Induces G2/M Arrest and Apoptosis via Mitochondrial and Endoplasmic Reticulum Pathways in H446 and H1688 Human Small-Cell Lung Cancer Cells. PLoS ONE 9(12): e115204. **WB;Human**.

PubMed:25506932

[IF=1.48]Gao, Guanmin, et al. "Poly (ADP?ribose) polymerase?and cytochrome c?mediated apoptosis induces hepatocyte injury in a rat model of hyperammonia?induced hepatic failure." Molecular Medicine Reports.**WB;Rat**.

PubMed:25634059

[IF=1.71]Liao, Peng, et al. "Organellar proteome analyses of ricin toxin-treated HeLa cells." Toxicology and industrial health (2014): 0748233714549066.**WB;Human**.

PubMed:25227225

[IF=2.59]Li, Aihong, et al. "Increased Expression of Mitochondrial Inner-Membrane Protein Mpv17 After Intracerebral Hemorrhage in Adult Rats." Neurochemical Research (2015): 1-11.**WB;Rat**.

PubMed:26123482

[IF=3.20]Chen, Chengzhi, et al. "Nuclear translocation of nuclear factor kappa B is regulated by G protein signaling pathway in arsenite-induced apoptosis in HBE cell line." Environmental Toxicology (2015).**WB;Human**.

PubMed:26306706

[IF=2.58]Gu, Shiyan, et al. "ROS-mediated endoplasmic reticulum stress and mitochondrial dysfunction underlie apoptosis induced by resveratrol and arsenic trioxide in A549 cells." Chemico-Biological Interactions (2016).**WB;Human**.

PubMed:26772155

[IF=5.74]Duan, Xiaoxu, et al. "Antioxidant tert-butylhydroquinone ameliorates arsenic-induced intracellular damages and apoptosis through induction of Nrf2-dependent antioxidant responses as well as stabilization of anti-apoptotic factor Bcl? 2 in human keratinocytes." Free Radical Biology and Medicine(2016).**WB;Human**.

PubMed:26878773

[IF=1.93]Ye, Jinxia, et al. "Millimeter Wave Treatment Inhibits Apoptosis of Chondrocytes via Regulation Dynamic Equilibrium of Intracellular Free Ca2."Evidence-Based Complementary and Alternative Medicine 2015 (2015).**Rat**.

	PubMed:25705239 [IF=2.57]Liu, Yi, et al. "GluR3B Ab's induced oligodendrocyte precursor cells excitotoxicity via mitochondrial dysfunction." Brain Research Bulletin (2017).**IF(ICC);Rat**. PubMed:28063880 [IF=2.38]Abdel-Hamid, Nagwa I., Mona F. El-Azab, and Yasser M. Moustafa. "Macrolide antibiotics differentially influence human HepG2 cytotoxicity and modulate intrinsic/extrinsic apoptotic pathways in rat hepatocellular carcinoma model." Naunyn-Schmiedeberg's Archives of Pharmacology (2017): 1-17.**IHC-P;Rat**. PubMed:28070612
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Rabbit,Guinea Pig,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestICC=1:100-500IF=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:	12.8/26kDa
Cellular localization:	cytoplasmicThe cell membraneMitochondrion
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Cytochrome C:51-105/105
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:	Cytochrome C is an electron transporting protein that resides within the intermembrane space of the mitochondria, where it plays a critical role in the process of oxidative phosphorylation and production of cellular ATP. An increasing amount of interest has been directed toward the role which cytocrome C has been demonstrated to play in apoptotic processes. Following exposure to apoptotic stimuli, cytochrome C is rapidly released from the mitochondria into the cytosol, an event which may be required for the completion of apoptosis in some systems. Cytosolic cytochrome C functions in the activation of caspase 3, an ICE family molecule that is a key effector of apoptosis. **Function:** Electron carrier protein. The oxidized form of the cytochrome c heme group can accept

an electron from the heme group of the cytochrome c1 subunit of cytochrome reductase. Cytochrome c then transfers this electron to the cytochrome oxidase complex, the final protein carrier in the mitochondrial electron-transport chain.
Plays a role in apoptosis. Suppression of the anti-apoptotic members or activation of the pro-apoptotic members of the Bcl-2 family leads to altered mitochondrial membrane permeability resulting in release of cytochrome c into the cytosol. Binding of cytochrome c to Apaf-1 triggers the activation of caspase-9, which then accelerates apoptosis by activating other caspases.

Subcellular Location:
Mitochondrion intermembrane space. Note=Loosely associated with the inner membrane.

Post-translational modifications:
Binds 1 heme group per subunit.
Phosphorylation at Tyr-49 and Tyr-98 both reduce by half the turnover in the reaction with cytochrome c oxidase, down-regulating mitochondrial respiration.

DISEASE:
Defects in CYCS are the cause of thrombocytopenia type 4 (THC4) [MIM:612004]; also known as autosomal dominant thrombocytopenia type 4. Thrombocytopenia is the presence of relatively few platelets in blood. THC4 is a non-syndromic form of thrombocytopenia. Clinical manifestations of thrombocytopenia are absent or mild. THC4 may be caused by dysregulated platelet formation.

Similarity:
Belongs to the cytochrome c family.

SWISS:
P99999

Gene ID:
54205

Database links:

Entrez Gene: 54205Human

Entrez Gene: 13063Mouse

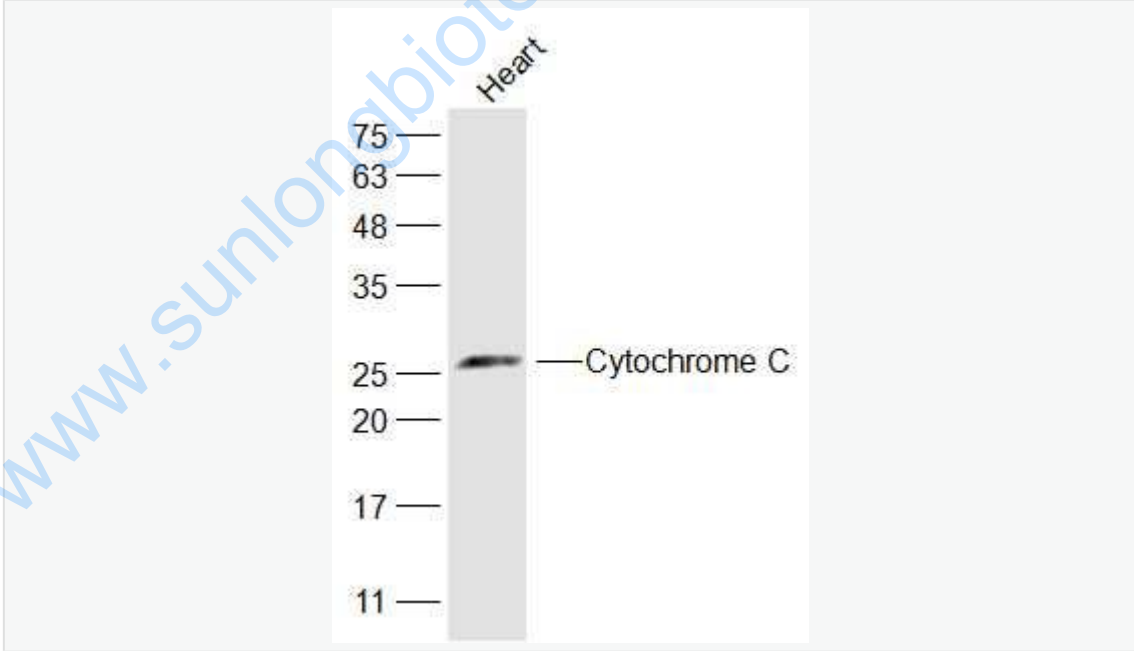
Entrez Gene: 25309Rat

Omim: 123970Human

SwissProt: P99999Human

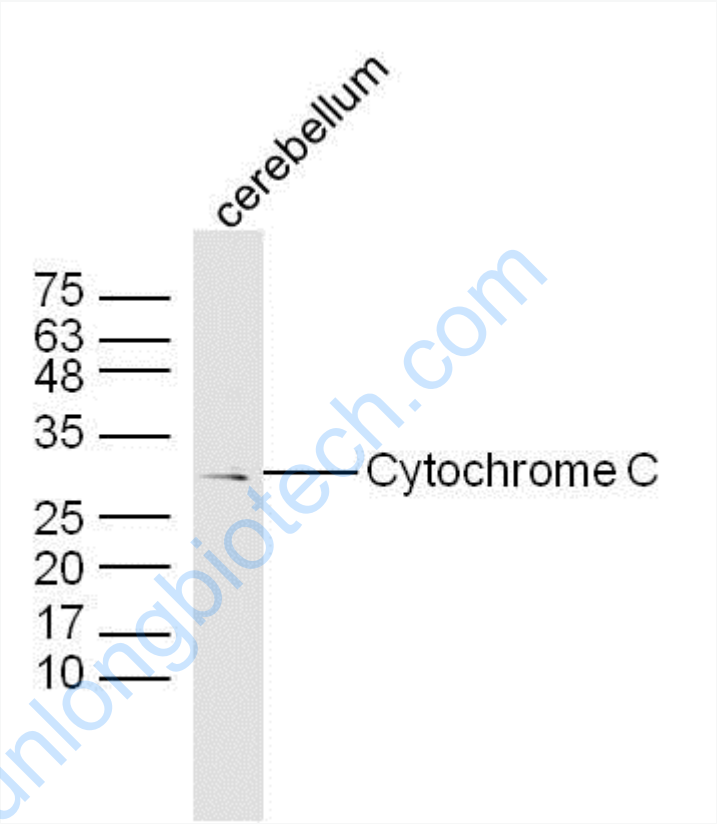
SwissProt: P62897Mouse

SwissProt: P62898Rat

	Unigene: 437060Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. 细胞色素C(cytC)是一种电子传递链蛋白为Mitochondrion呼吸链必须的成份之一。在哺乳动物细胞中，如此高度保守性蛋白常分布在线立体内膜。 新近研究证明cytoplasmic中细胞色素C为激活细胞调亡所必需的因子。在调亡的过程中，细胞色素C从线立体膜被易位到cytoplasmic，由细胞色素C激活Caspase-3(CPP32)。 细胞色素C的易位可被过量表达的Bcl-2阻断。细胞色素B与细胞色素C1和Rieske蛋白相结合而形成复合物III(也称细胞色素B-C1复合物)参与细胞呼吸链。该蛋白动物种属间同源性较高;如:猪、犬、牛、鸡、豚鼠等。
Picture:	 Sample: Heart(Rat)A549 Cell Lysate at 40 ug Primary: Anti-Cytochrome C (SL0013R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 12.8/26 kD

Observed band size: 26 kD



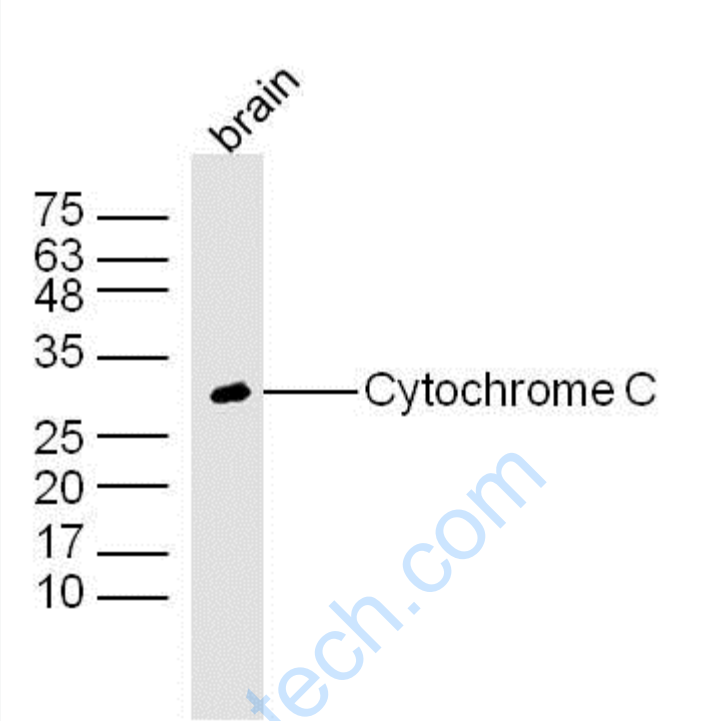
Sample: Cerebellum (Mouse) lysate at 30ug;

Primary: Anti-Cytochrome C (SL0013R) at 1:300;

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

Predicted band size:12.8/26 kD

Observed band size:27 kD



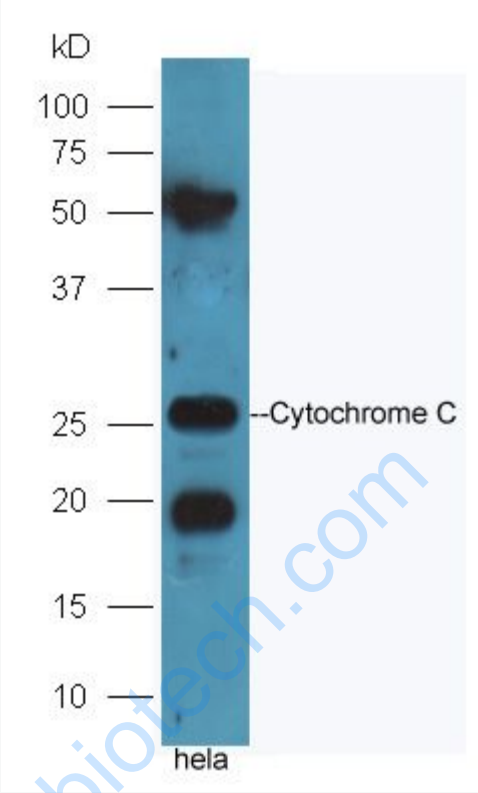
Sample: Brain (Mouse) lysate at 30ug;

Primary: Anti-Cytochrome C (SL0013R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL0013R) at 1: 5000 dilution;

Predicted band size:12.8/26 kD

Observed band size:28 kD



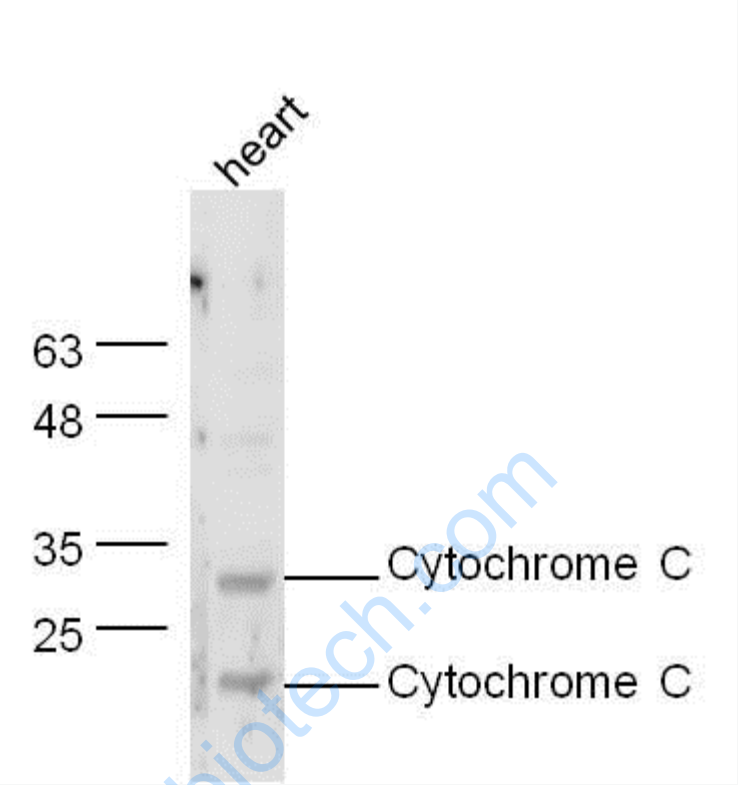
Sample: Hela Cell lysate at 30ug;

Primary: Anti-Cytochrome C (SL0013R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL0013R) at 1: 5000 dilution;

Predicted band size:12.8/26 kD

Observed band size:26 kD



Sample:

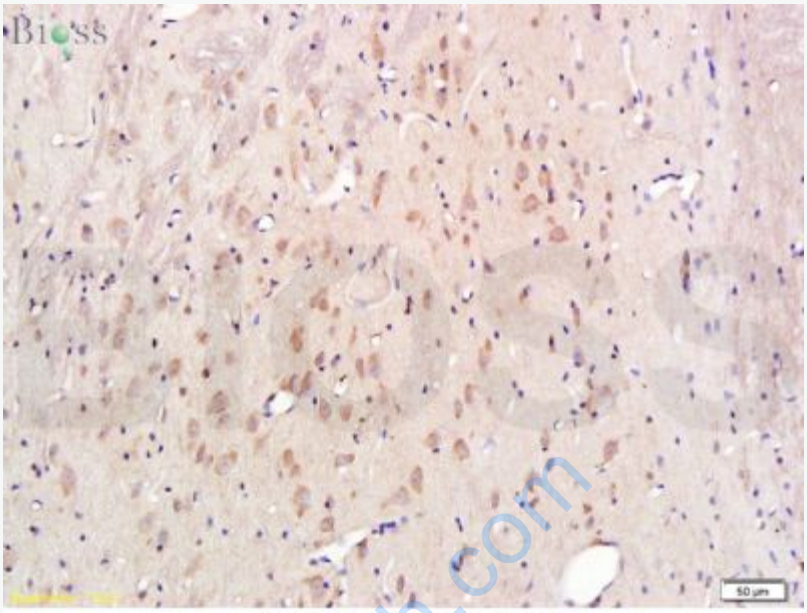
heart (Mouse) Lysate at 40 ug

Primary: Anti-Cytochrome C (SL0013R) at 1/300 dilution

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

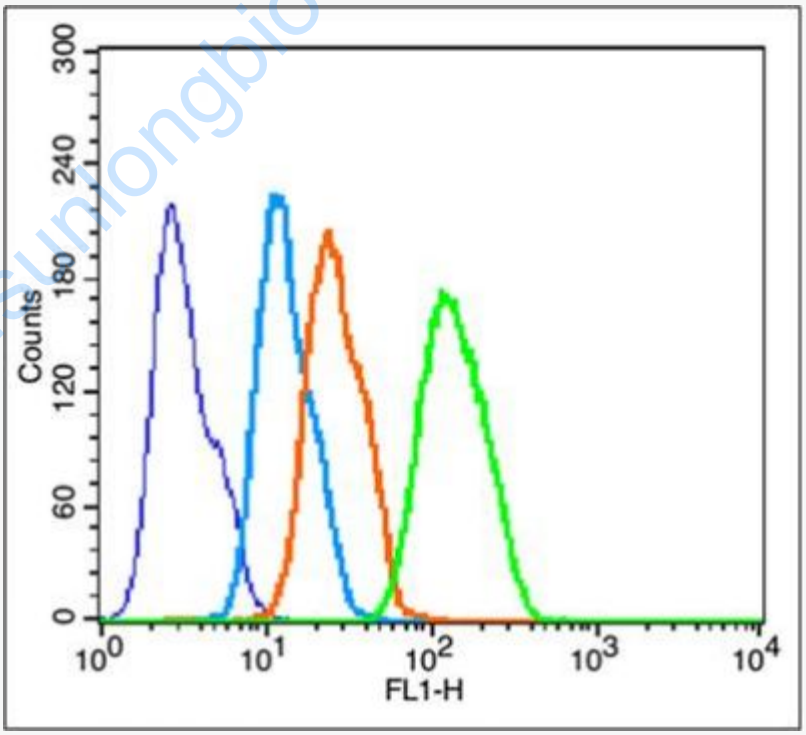
Predicted band size: 13/28 kD

Observed band size: 13/28 kD



bs-0013R Anti-Cytochrome C

Formalin-fixed and paraffin-embedded rat brain tissue labeled with Rabbit Anti-Cytochrome C Polyclonal Antibody, Unconjugated(bs-0013R) at 1:300 followed by conjugation to the secondary antibody and DAB staining



Blank control: HepG2(blue).

Primary Antibody:Rabbit Anti-Cytochrome C antibody (SL0013R); Dilution: 1µg in

	100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA. Protocol The cells were fixed with 2% paraformaldehyde for 10 min at 37℃. Primary antibody (SL0013R) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/FITC antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 40 min at room temperature. Acquisition of 20,000 events was performed.