

## Actin $\beta$ Polyclonal Antibody

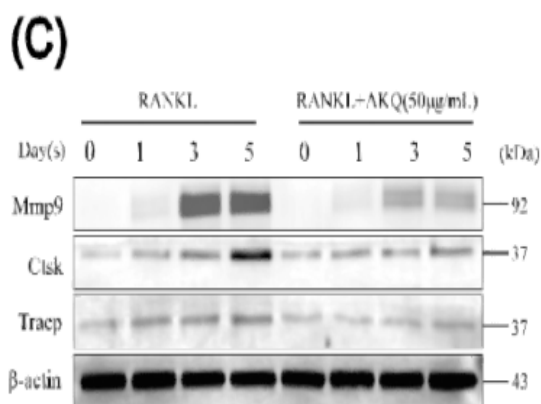
<b>Catalog No :</b>	YT0099
<b>Reactivity :</b>	Human;Mouse;Rat;Chicken;Globefish;Bovine;Hamster;Pig;Ovine;Cat;Pig;Dog;Sheep
<b>Applications :</b>	IF;WB;IHC;ELISA
<b>Target :</b>	Actin $\beta$
<b>Fields :</b>	>>Rap1 signaling pathway;>>Phagosome;>>Apoptosis;>>Hippo signaling pathway;>>Focal adhesion;>>Adherens junction;>>Tight junction;>>Platelet activation;>>Neutrophil extracellular trap formation;>>Leukocyte transendothelial migration;>>Thermogenesis;>>Regulation of actin cytoskeleton;>>Thyroid hormone signaling pathway;>>Oxytocin signaling pathway;>>Gastric acid secretion;>>Amyotrophic lateral sclerosis;>>Bacterial invasion of epithelial cells;>>Vibrio cholerae infection;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Salmonella infection;>>Yersinia infection;>>Influenza A;>>Proteoglycans in cancer;>>Hepatocellular carcinoma;>>Hypertrophic cardiomyopathy;>>Arrhythmogenic right ventricular cardiomyopathy;>>Dilated cardiomyopathy;>>Viral myocarditis;>>Fluid shear stress and atherosclerosis
<b>Gene Name :</b>	ACTB
<b>Protein Name :</b>	Actin cytoplasmic 1
<b>Human Gene Id :</b>	60
<b>Human Swiss Prot No :</b>	P60709
<b>Mouse Gene Id :</b>	11461
<b>Mouse Swiss Prot No :</b>	P60710
<b>Rat Gene Id :</b>	81822
<b>Rat Swiss Prot No :</b>	P60711
<b>Immunogen :</b>	Synthesized peptide derived from the N-terminal region of human Actin $\beta$ . AA range: 1-80

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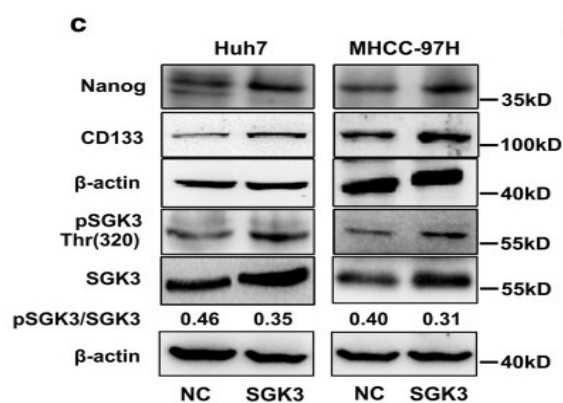
<b>Specificity :</b>	Actin $\beta$ Polyclonal Antibody detects endogenous levels of Actin $\beta$ protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	IF 1:50-200 WB 1:2000 - 1:10000. IHC 1:100 - 1:300. ELISA: 1:20000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	42kD
<b>Cell Pathway :</b>	Focal adhesion;Adherens_Junction;Adherens_Junction;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Vibrio cholerae infection;Pathogenic Escherichia coli infection;Hypertrophic ca
<b>Background :</b>	This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, and integrity. This actin is a major constituent of the contractile apparatus and one of the two nonmuscle cytoskeletal actins. [provided by RefSeq, Jul 2008],
<b>Function :</b>	disease:Defects in ACTB are a cause of dystonia juvenile-onset (DYTJ) [MIM:607371]. DYTJ is a form of dystonia with juvenile onset. Dystonia is defined by the presence of sustained involuntary muscle contraction, often leading to abnormal postures. DYTJ patients manifest progressive, generalized, dopa-unresponsive dystonia, developmental malformations and sensory hearing loss.,function:Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.,miscellaneous:In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility.,similarity:Belongs to the
<b>Subcellular Location :</b>	Cytoplasm, cytoskeleton . Nucleus . Localized in cytoplasmic mRNP granules containing untranslated mRNAs. .
<b>Expression :</b>	B-cell lymphoma,Brain,Cajal-Retzius cell,Eye,Fetal brain cortex,Foreskin,Hepatocellular car

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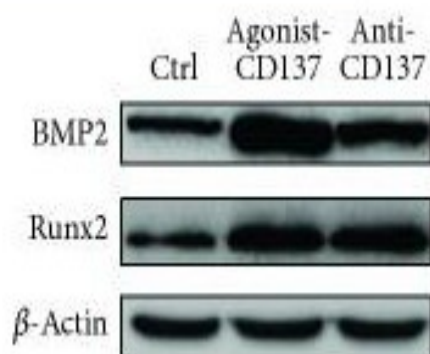
## Products Images



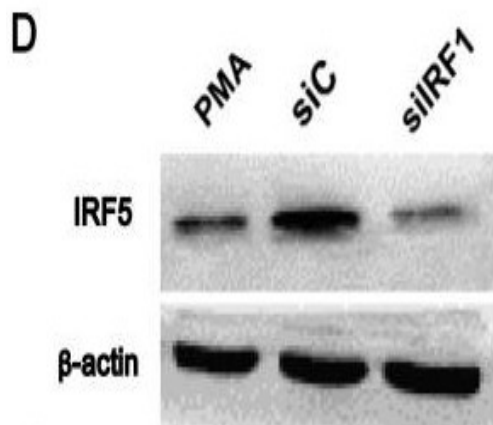
Aikeqing, a kidney- and spleen-tonifying compound Chinese medicine granule, prevented ovariectomy-induced bone loss in rats via the suppression of osteoclastogenesis. BIOMEDICINE & PHARMACOTHERAPY Xiao-Ling Shen WB Rat Mouse left femurs bone marrow macrophages (BMMs)



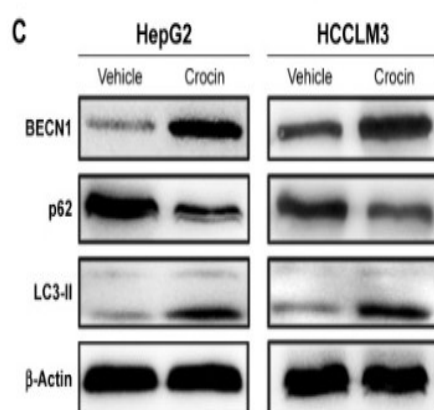
Liu, Fengchao, et al. "Prolonged inhibition of class I PI3K promotes liver cancer stem cell expansion by augmenting SGK3/GSK-3 $\beta$ / $\beta$ -catenin signalling." Journal of Experimental & Clinical Cancer Research 37.1 (2018): 122.



Chen, Rui, et al. "Activation of CD137 Signaling Enhances Vascular Calcification through c-Jun N-Terminal Kinase-Dependent Disruption of Autophagic Flux." Mediators of inflammation 2018 (2018).



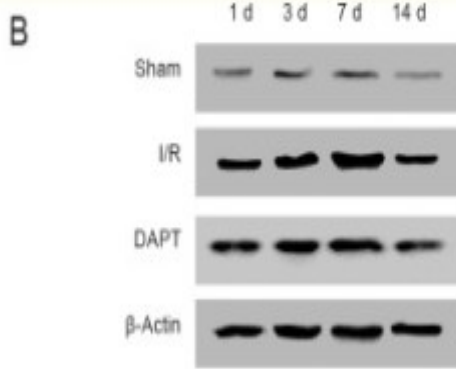
Xie, Changli, et al. "Effects of IRF1 and IFN- $\beta$  interaction on the M1 polarization of macrophages and its antitumor function." *International journal of molecular medicine* 38.1 (2016): 148-160.



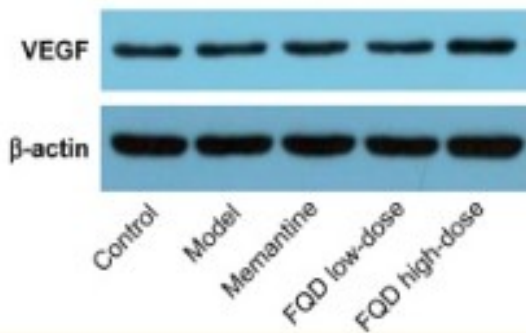
Yao, Chong, et al. "Crocin induces autophagic apoptosis in hepatocellular carcinoma by inhibiting Akt/mTOR activity." *OncoTargets and therapy* 11 (2018): 2017.



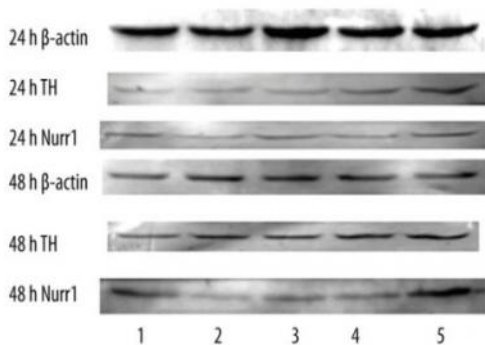
Li, Haiming, et al. "Collagen External Scaffolds Mitigate Intimal Hyperplasia and Improve Remodeling of Vein Grafts in a Rabbit Arteriovenous Graft Model." *BioMed Research International* 2017 (2017).



Wang, Jun-Jie, et al. "Neuroprotective effect of Notch pathway inhibitor DAPT against focal cerebral ischemia/reperfusion 3 hours before model establishment." *Neural regeneration research* 14.3 (2019): 452.

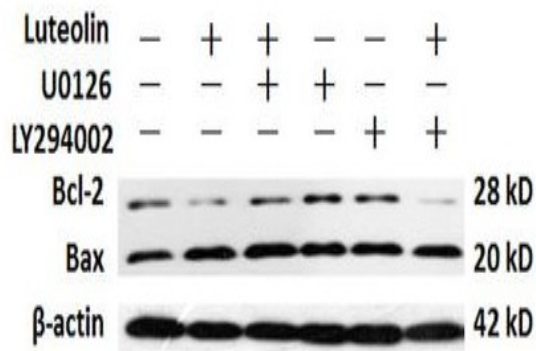


Wang, Feixue, et al. "The Chinese herbal formula Fuzheng Quxie Decoction attenuates cognitive impairment and protects cerebrovascular function in SAMP8 mice." *Neuropsychiatric disease and treatment* 14 (2018): 3037.

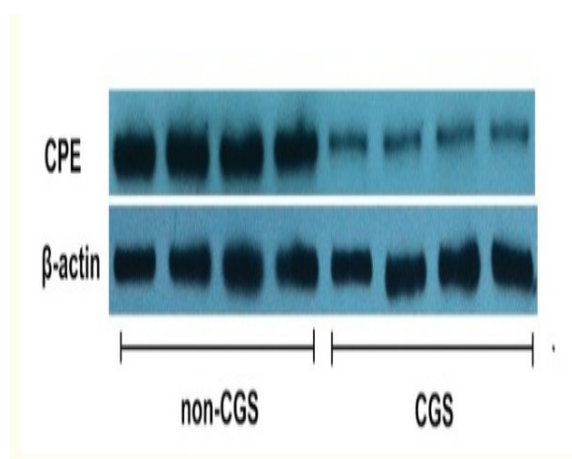


Note: 1 – negative control; 2 – solvent control; 3 – 50 μmol/L; 4 – 300 μmol/L; 5 – 600 μmol/L

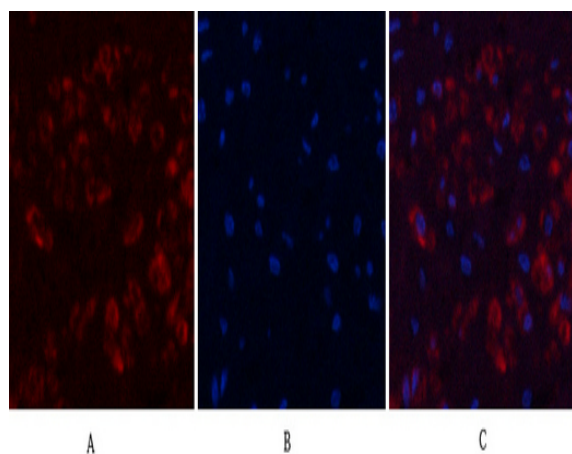
Yu, Jia, et al. "Effects of simazine exposure on neuronal development-related factors in mn9d cells." *Medical science monitor: international medical journal of experimental and clinical research* 22 (2016): 2831.



Lu, Xueying, et al. "Luteolin induces apoptosis in vitro through suppressing the MAPK and PI3K signaling pathways in gastric cancer." *Oncology letters* 14.2 (2017): 1993-2000.

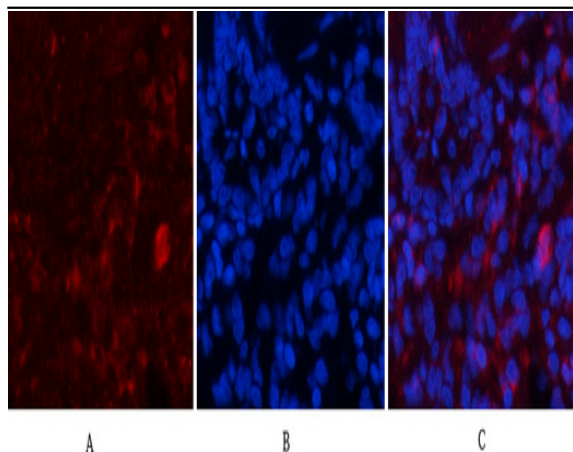


Dai, Shu-Long, et al. "The expression of hepatic carboxypeptidase E is decreased in patients with cholesterol gallstone." *Saudi journal of gastroenterology: official journal of the Saudi Gastroenterology Association* 21.4 (2015): 226.

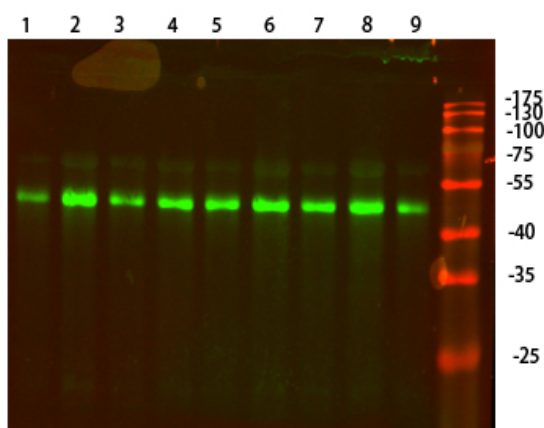


Immunofluorescence analysis of human-uterus tissue. 1, Actin  $\beta$  Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

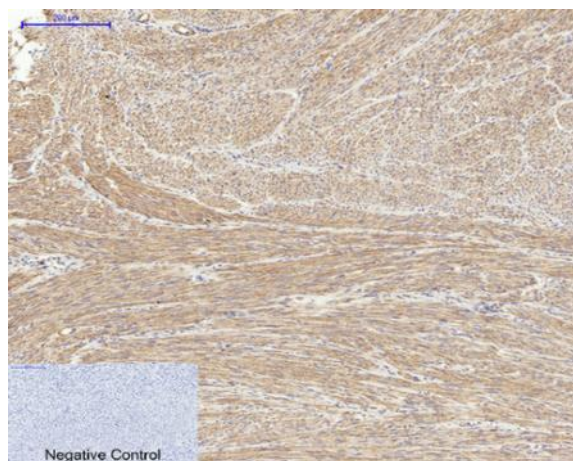




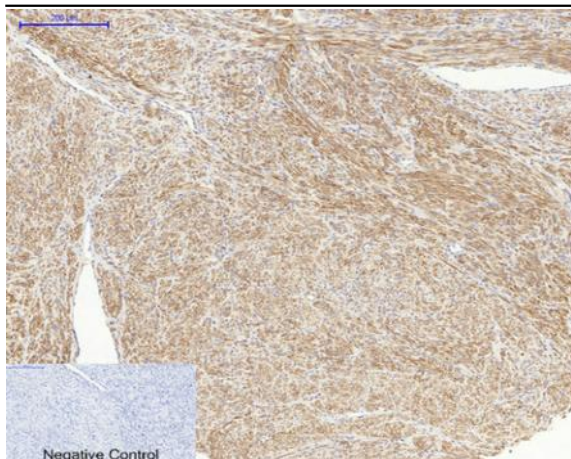
Immunofluorescence analysis of rat-lung tissue. 1, Actin  $\beta$  Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



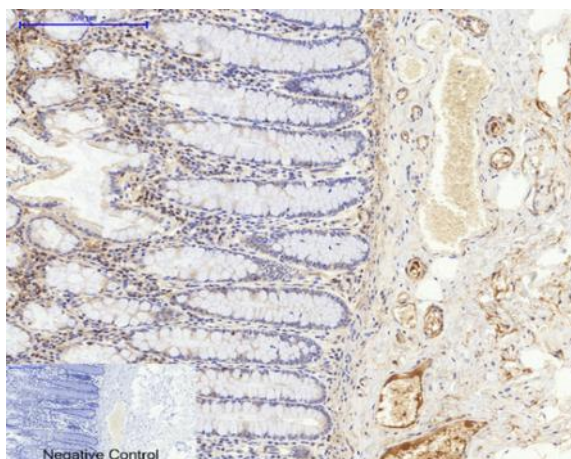
Western Blot analysis of 1, HeLa 2, A549 3, HEPG2 4, Mouse-brain 5, Mouse-lung 6, Mouse-liver 7, Rat-brain 8, Rat-lung 9, Rat-liver cells using primary antibody diluted at 1:1000 (4 °C overnight). Secondary antibody: Goat Anti-rabbit IgG IRDye 800 (diluted at 1:5000, 25 °C, 1 hour). Cell lysate was extracted by Minute™ Plasma Membrane Protein Isolation and Cell Fractionation Kit (SM-005, Invent Biotech, MN, USA).



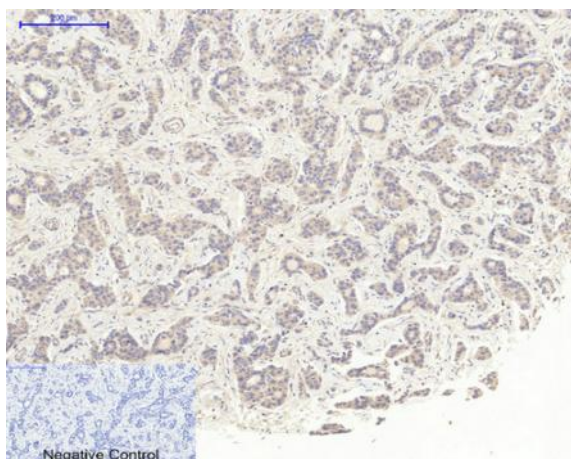
Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20 min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30 min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.

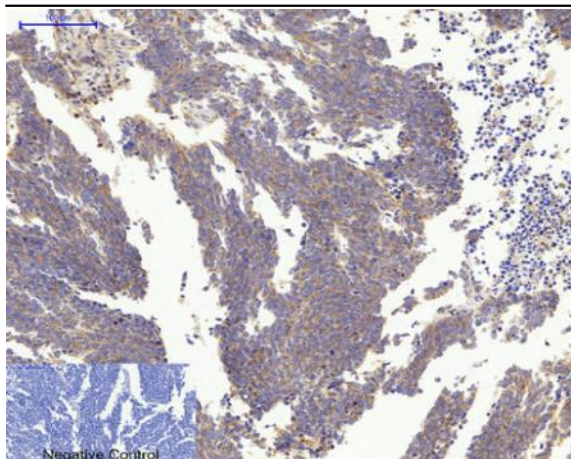


Immunohistochemical analysis of paraffin-embedded Human-colon tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.

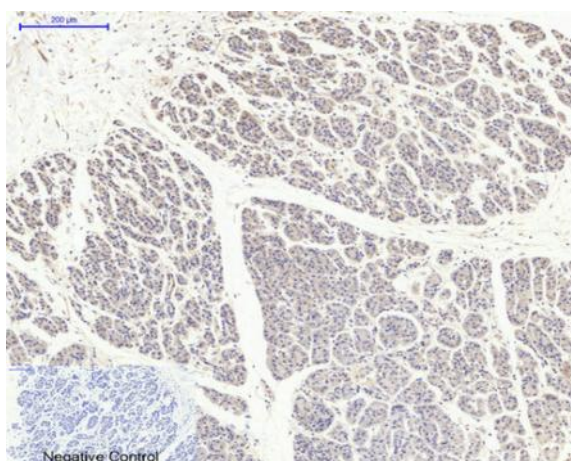


Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.

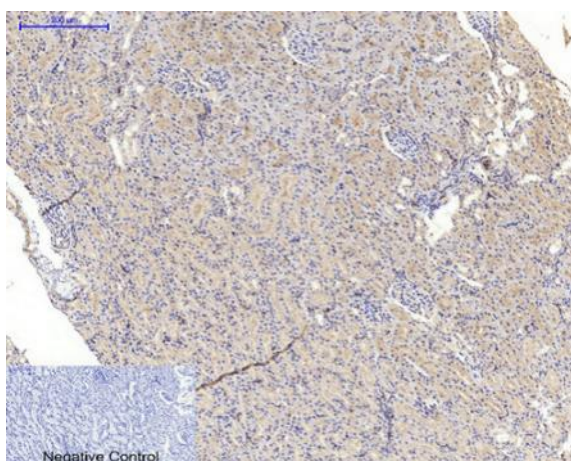




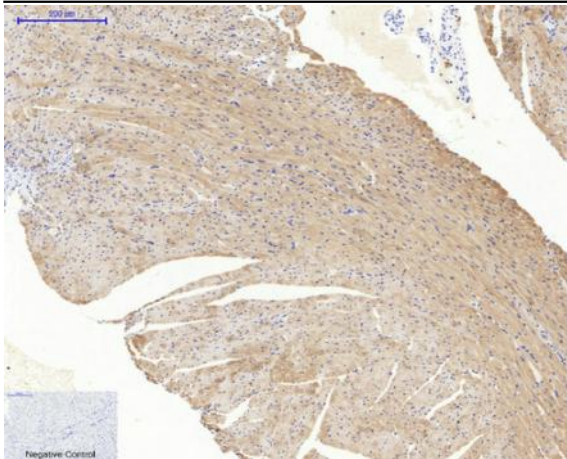
Immunohistochemical analysis of paraffin-embedded Human-lung-cancer tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



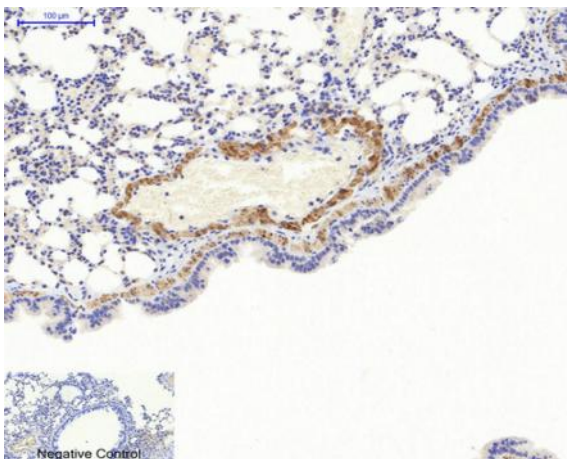
Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



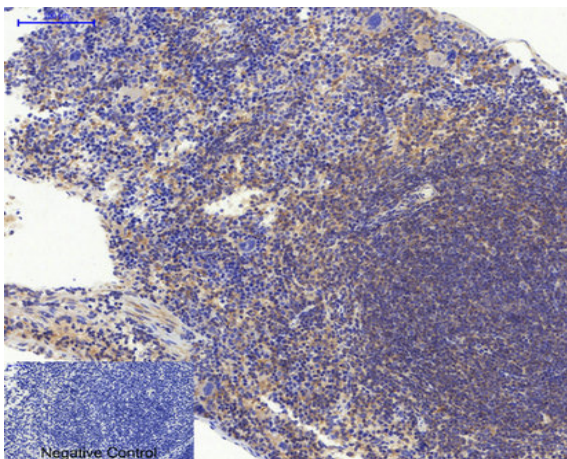
Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



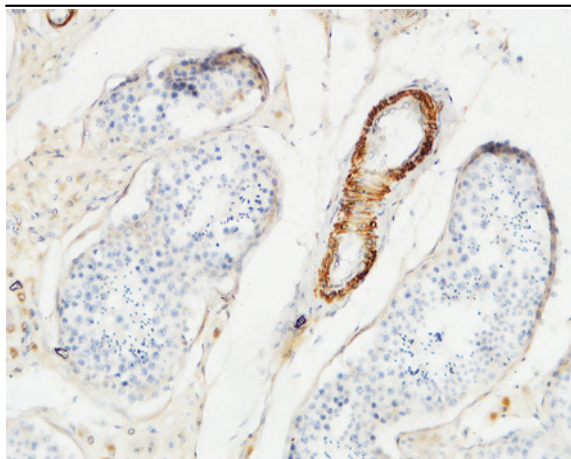
Immunohistochemical analysis of paraffin-embedded Mouse-heart tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-lung tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-spleen tissue. 1, Actin  $\beta$  Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human testis. 1, Antibody was diluted at 1:100(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).