SunLong Biotech Co.,LTD
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Rabbit Anti-CDKN1B/p27 KIP 1 antibody

SL0742R

Product Name	CDKN1B/p27 KIP 1
Chinese Name	P27 抗体/周期素依赖激酶抑制剂
Alias	p27 KIP 1; CDN1B_HUMAN; AA408329; AI843786; Cdki1b; CDKN 1B; CDKN 4; CDKN1B CDKN1B; CDKN4; CDKN4; Cyclin Dependent Kinase Inhibitor 1B; Cyclin Dependent Kinase 1B; Cyclin dependent kinase inhibitor p27; Cyclin dependent kinase inhibitor p27; Cyclin-depen kinase inhibitor 1B (p27, Kip1); Cyclin-dependent kinase inhibitor 1B; Cyclin-dependent kinase p27; Cyclin-dependent kinase inhibitor p27 Kip1; KIP 1; KIP1; MEN1B; MEN4; OTTHUMP00000195098; OTTHUMP00000195099; p27; p27 Kip1; P27-like cyclin-dependent inhibitor; P27KIP1.
Research Area	Tumour immunology Chromatin and nuclear signals Signal transduction Apoptosis
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Chicken, Dog, Pig, Sheep,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:200-800,Flow-Cyt=1μg/Test （Par sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	22kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human P27 kip1: 101-198/198
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

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

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Cell cycle progression is regulated by cyclins and their cognate Cdks. p27 KIP 1 is a cell cycle re mitotic inhibitor of cdk activity. p27 KIP 1 is a candidate tumor suppressor gene, and has been pro function as a possible mediator of TGF beta induced G1 arrest. p27 KIP 1 is up regulated in resp antimitogenic stimuli. The increased protein expression of p27 results in cellular arrest by bindi cyclin/Cdk complexes such as cyclin D1/Cdk4. p27 Kip1 is regulated by phosphorylation on ser (S10) and threonine 187 (T187). Phosphorylation by CDK2 on T187 results in ubiquitylation an degradation of p27 Kip 1; while phosphorylation by hKIS on S10 signals the nuclear export to th cytoplasm.

Function:
Important regulator of cell cycle progression. Involved in G1 arrest. Potent inhibitor of cyclin E- cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involv assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhi an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichometry.

Subunit:
Forms a ternary compex with CCNE1/CDK2/CDKN1B.

Product Detail

Subcellular Location:
Nucleus. Cytoplasm. Endosome. Note=Nuclear and cytoplasmic in quiescent cells. AKT-or RSK-mediated phosphorylation on Thr-198, binds 14-3-3, translocates to the cytoplasm and prom cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in transloc the cytoplasm and cell cycle progression. Phosphorylation on Ser-10 facilitates nuclear export. Translocates to the nucleus on phosphorylation of Tyr-88 and Tyr-89. Colocalizes at the endoso SNX6; this leads to lysosomal degradation.

Tissue Specificity:
Expressed in all tissues tested. Highest levels in skeletal muscle, lowest in liver and kidney.

Post-translational modifications:
Phosphorylated; phosphorylation occurs on serine, threonine and tyrosine residues. Phosphoryla Ser-10 is the major site of phosphorylation in resting cells, takes place at the G(0)-G(1) phase and protein stability. Phosphorylation on other sites is greatly enhanced by mitogens, growth factors, and in certain cancer cell lines. The phosphorylated form found in the cytoplasm is inactivate. Phosphorylation on Thr-198 is required for interaction with 14-3-3 proteins. Phosphorylation on by CDK2 leads to protein ubiquitination and proteasomal degradation. Tyrosine phosphorylation promotes this process. Phosphorylation by PKB/AKT1 can be suppressed by LY294002, an inhi the catalytic subunit of PI3K. Phosphorylation on Tyr-88 and Tyr-89 has no effect on binding CI is required for binding CDK4. Dephosphorylated on tyrosine residues by G-CSF.

Ubiquitinated; in the cytoplasm by the KPC complex (composed of RNF123/KPC1 and UBAC1 and, in the nucleus, by SCF(SKP2). The latter requires prior phosphorylation on Thr-187. Ubiqu by a TRIM21-containing SCF(SKP2)-like complex; leads to its degradation.

DISEASE:
Defects in CDKN1B are the cause of multiple endocrine neoplasia type 4 (MEN4) [MIM:61075 Multiple endocrine neoplasia (MEN) syndromes are inherited cancer syndromes of the thyroid. M MEN-like syndrome with a phenotypic overlap of both MEN1 and MEN2.

Similarity:
Belongs to the CDI family.

SWISS:
P46527

Gene ID:
1027

Database links:

Entrez Gene: 1027 Human

Entrez Gene: 12576 Mouse

Entrez Gene: 83571 Rat

Omim: 600778 Human

SwissProt: P46527 Human

SwissProt: P46414 Mouse

Unigene: 238990 Human

Unigene: 2958 Mouse

P27 蛋白是一种新发现的周期素依赖激酶抑制剂，属于细胞周期的负性调控因子。P27 基产物的异常表达可能与某些 Tumour 的发生、发展有着密切的关系。P27 蛋白对细胞周期及在 Tumour 中发挥着很重要的作用，The nucleus 表达。

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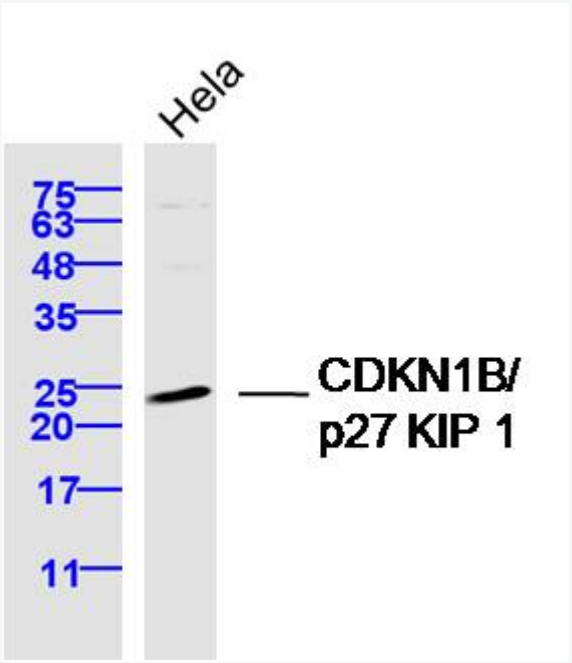
Product Picture



Sample: Hela Cell (Human) Lysate at 40 ug

Primary: Anti-CDKN1B/p27 KIP 1 (SL0742R) at 1/300 dilution

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

Predicted band size: 22 kD

Observed band size: 24 kD

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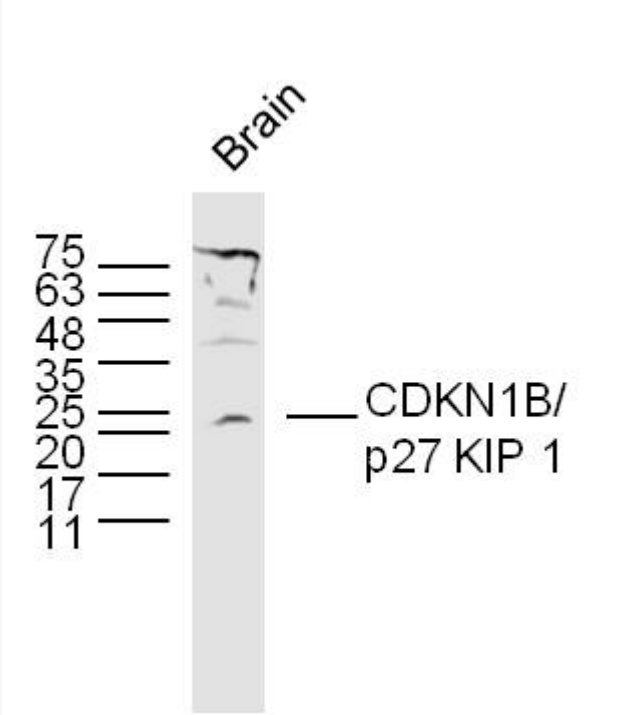

Sample:

Brain (Mouse) Lysate at 40 ug

Primary: Anti- CDKN1B'p27 KIP 1 (SL0742R) at 1/300 dilution

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

Predicted band size: 22 kD

Observed band size: 22 kD

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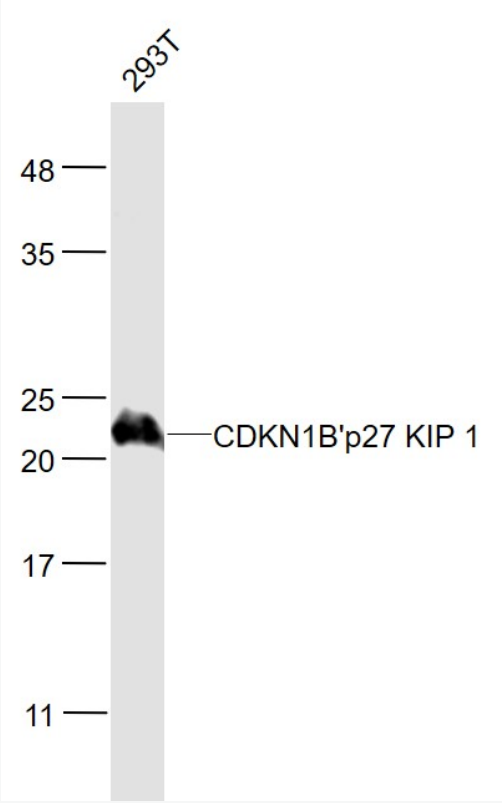

Sample:

293T(Human) Cell Lysate at 30 ug

Primary: Anti- CDKN1B'p27 KIP 1 (SL0742R) at 1/1000 dilution

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

Predicted band size: 22 kD

Observed band size: 22 kD

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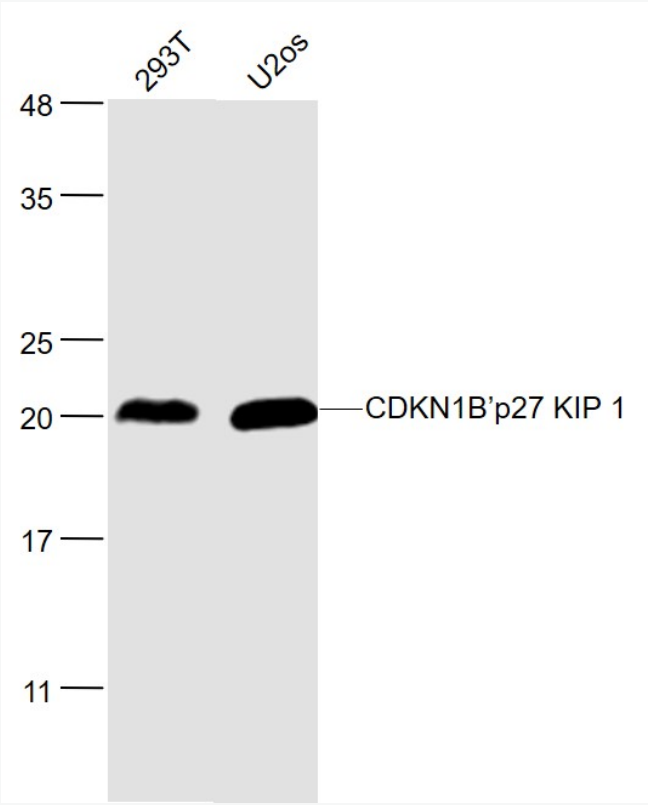

Sample:

293T(Human) Cell Lysate at 30 ug

U2os(Human) Cell Lysate at 30 ug

Primary: Anti- CDKN1B'p27 KIP 1 (SL0742R) at 1/1000 dilution

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

Predicted band size: 22 kD

Observed band size: 22 kD

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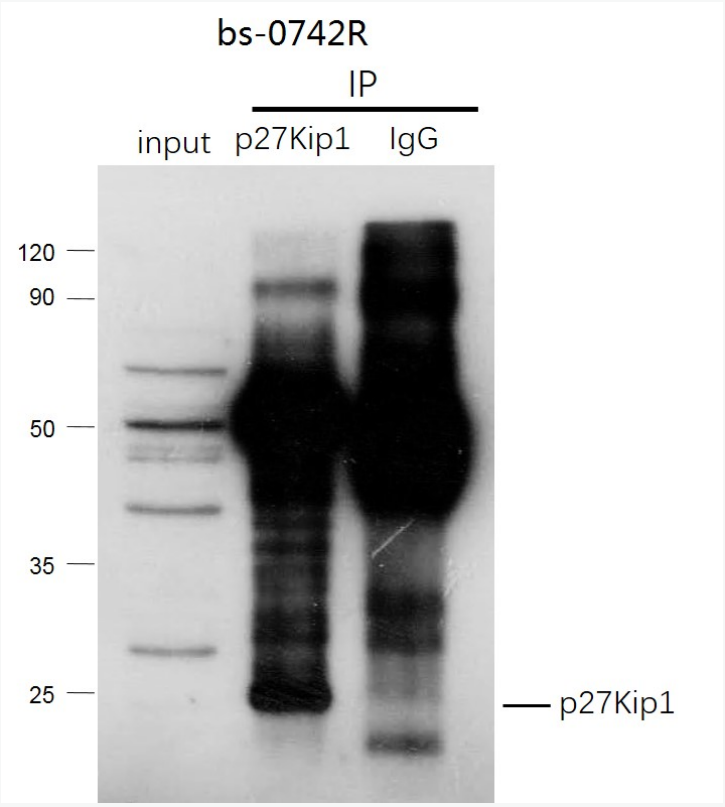

CDKN1B (p27Kip1) was immunoprecipitated from mouse kidney tissue with SL0742R at 1/1 dilution. Western blot was performed from the immunoprecipitate using protein A/G beads. H Conjugated Goat anti-Rabbit IgG (Heavy Chain specific) was used as secondary antibody at 1 dilution.

Lane 1: mouse kidney tissue lysate 10 µg (Input).

Lane 2: SL0742R IP in mouse kidney tissue lysate.

Lane 3: native rabbit IgG IP in mouse kidney tissue lysate (negative control).

Secondary

All lanes Goat anti-Rabbit IgG (Heavy Chain specific), HRP Conjugated, 1:5000

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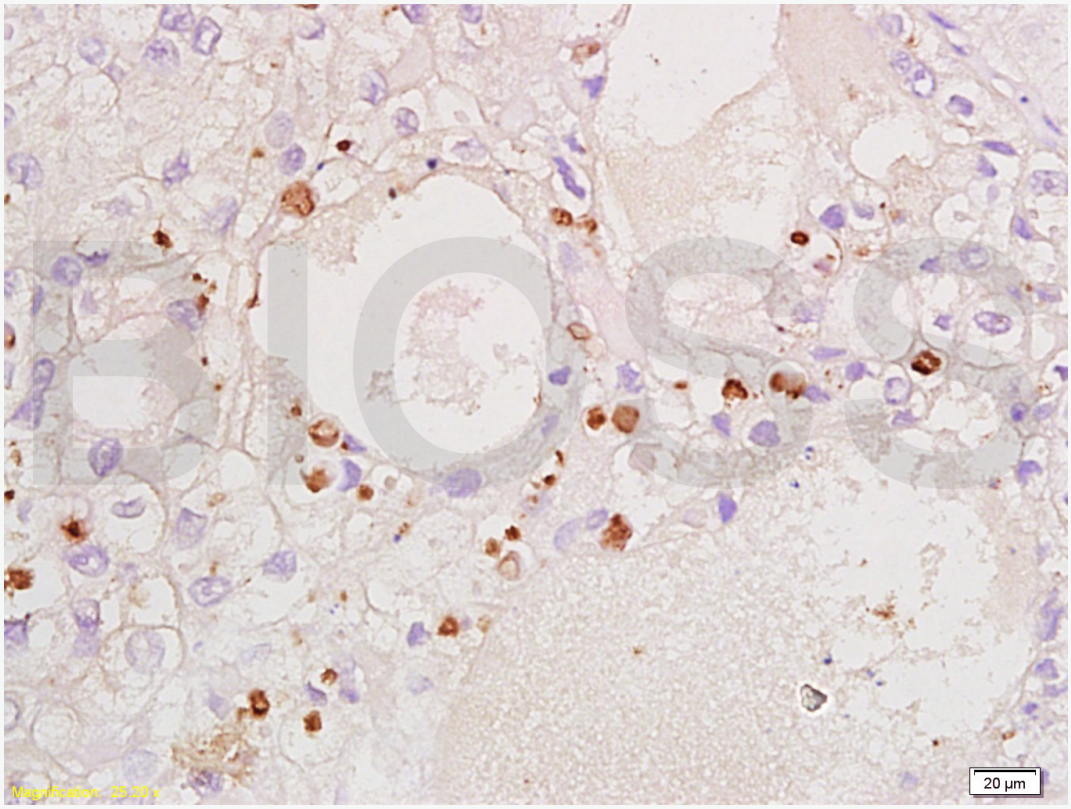

Tissue/cell: human ovary carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) for 20 min;

Incubation: Anti-CDKN1B/P27kip1 Polyclonal Antibody, Unconjugated(SL0742R) 1:200, ov at 4∑C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) stain

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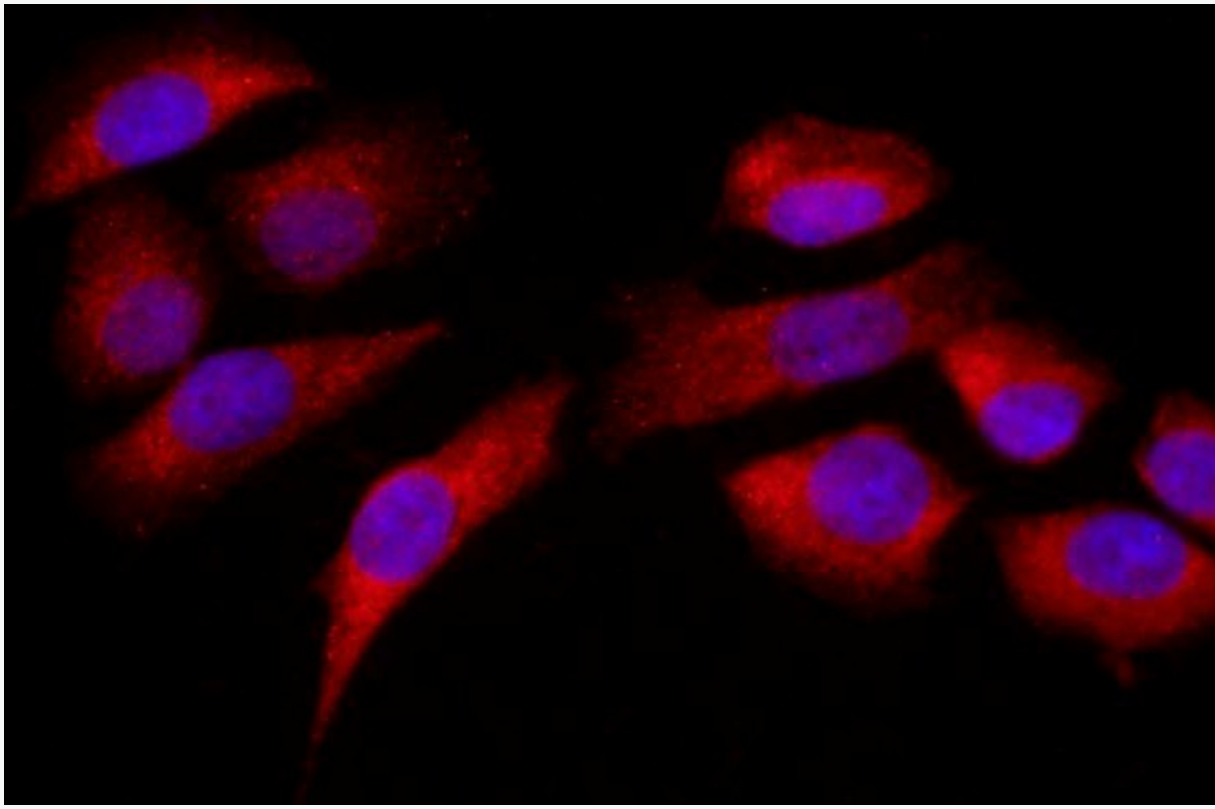

Tissue/cell: MCF7; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 mi

Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with

(CDKN1B) Polyclonal Antibody, Unconjugated (SL0742R) 1:200, 90 minutes at 37°C; follo

a conjugated Goat Anti-Rabbit IgG antibody (SL0295G-FITC) at 37°C for 90 minutes, DAPI

C02-04002) was used to stain the cell nuclei.

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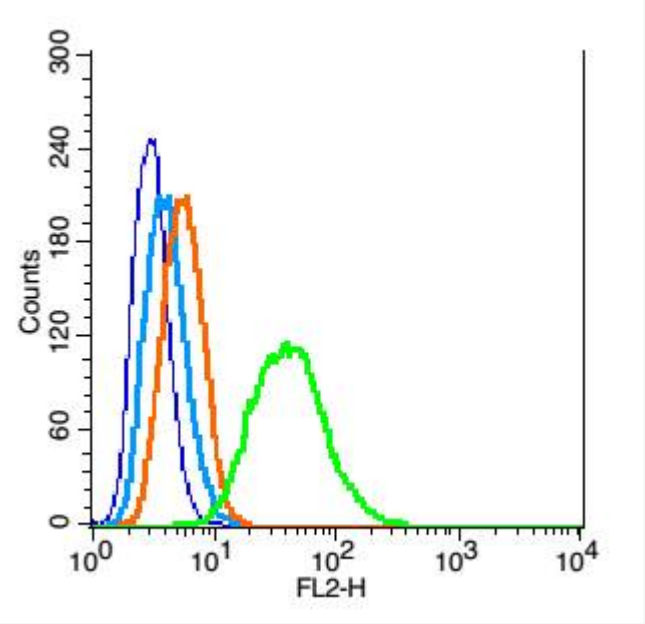

Blank control: RSC96(blue), the cells were fixed with 2% paraformaldehyde (10 min) and the

permeabilized with ice-cold 90% methanol for 30 min on ice.

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-PE

blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 1µg in

100µL1X PBS containing 0.5% BSA(green).