

Rabbit Anti-Cyclooxygenase 2 antibody

SL0732R

Product Name Cyclooxygenase 2

Chinese Name 环氧合酶 2/前列腺素内过氧化物合成酶 2 抗体

Alias PTGS2; COX 2; COX-2; Cyclooxygenase; Cyclooxygenase2; Cyclooxygenase-2; COX2; hCox 2; PGG/HS; PGH synthase 2; PGHS 2; PGHS2; PHS 2; PHS II; PHS2 ; Prostaglandin endoperoxide synthase 2; Prostaglandin G/H synthase 2 precursor; Prostaglandin G/H synthase and cyclooxygenase; Prostaglandin G/H synthase 2; Prostaglandin H2 synthase 2; TIS10II; PGH2_HUMAN.

Research Area Tumour Cardiovascular immunology Signal transduction Synthesis and Degradation The new supersedes the old

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat, (predicted: Dog, Pig, Cow, Rabbit, Sheep,)

WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500
(Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 65kDa

Cellular localization cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human Cyclooxygenase 2: 501-604/604

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°C. 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 diagnostic applications.

PubMed

[PubMed](#)

Prostaglandin-endoperoxide synthase (PTGS), also known as cyclooxygenase, is the key enzyme in prostaglandin biosynthesis, and acts both as a dioxygenase and as a peroxidase. There are two isozymes of PTGS: a constitutive PTGS1 and an inducible PTGS2, which differ in their regulation of expression and tissue distribution. This gene encodes the inducible isozyme. It is regulated by specific stimulatory events, suggesting that it is responsible for the prostanoid biosynthesis involved in inflammation and mitogenesis. [provided by RefSeq, Feb 2009]

Function:

Mediates the formation of prostaglandins from arachidonate. May have a role as a major mediator of inflammation and/or a role for prostanoid signaling in activity-dependent plasticity.

Subunit:

Homodimer.

Subcellular Location:

Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein.

**Product
Detail**

Post-translational modifications:

S-nitrosylation by NOS2 (iNOS) activates enzyme activity. S-nitrosylation may take place on different Cys residues in addition to Cys-561.

Similarity:

Belongs to the prostaglandin G/H synthase family. Contains 1 EGF-like domain.

SWISS:

P35354

Gene ID:

5743

Database links:

[Entrez Gene: 5743](#) Human

[Entrez Gene: 19225](#) Mouse

[Entrez Gene: 29527](#) Rat

[Omim: 600262](#) Human

[SwissProt: P35354](#) Human

[SwissProt: Q05769](#) Mouse

[SwissProt: P35355](#) Rat

[Unigene: 196384](#) Human

[Unigene: 292547](#) Mouse

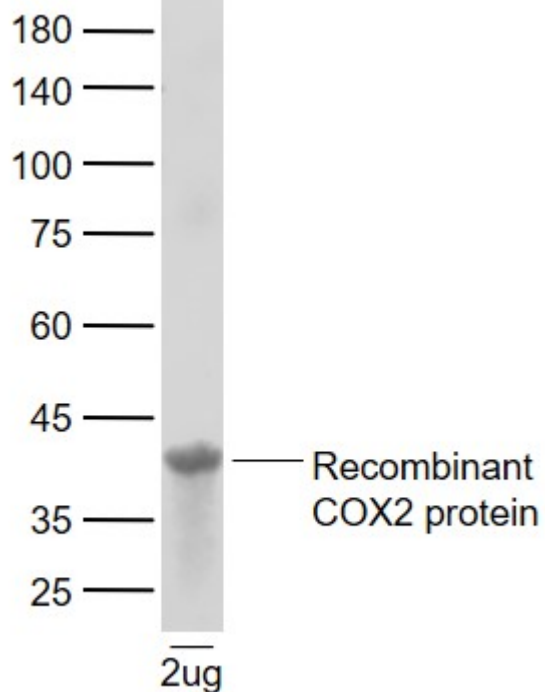
[Unigene: 44369](#) Rat

Synthesis and Degradation (Synthesis and Degradation)

COX-2 前列腺素氧化环化酶-2 是前列腺素合成的关键酶之一，为诱导性酶，他参与细胞对生长因子、Tumour 促进因子和 cell factor 的反应，这些因子均能诱导 COX2 表达，它也参与前列腺素的合成。

COX2 在 80-90% 的人结肠腺癌中表达显著增高，而 COX1 表达却不变。

**Product
Picture**



Sample:

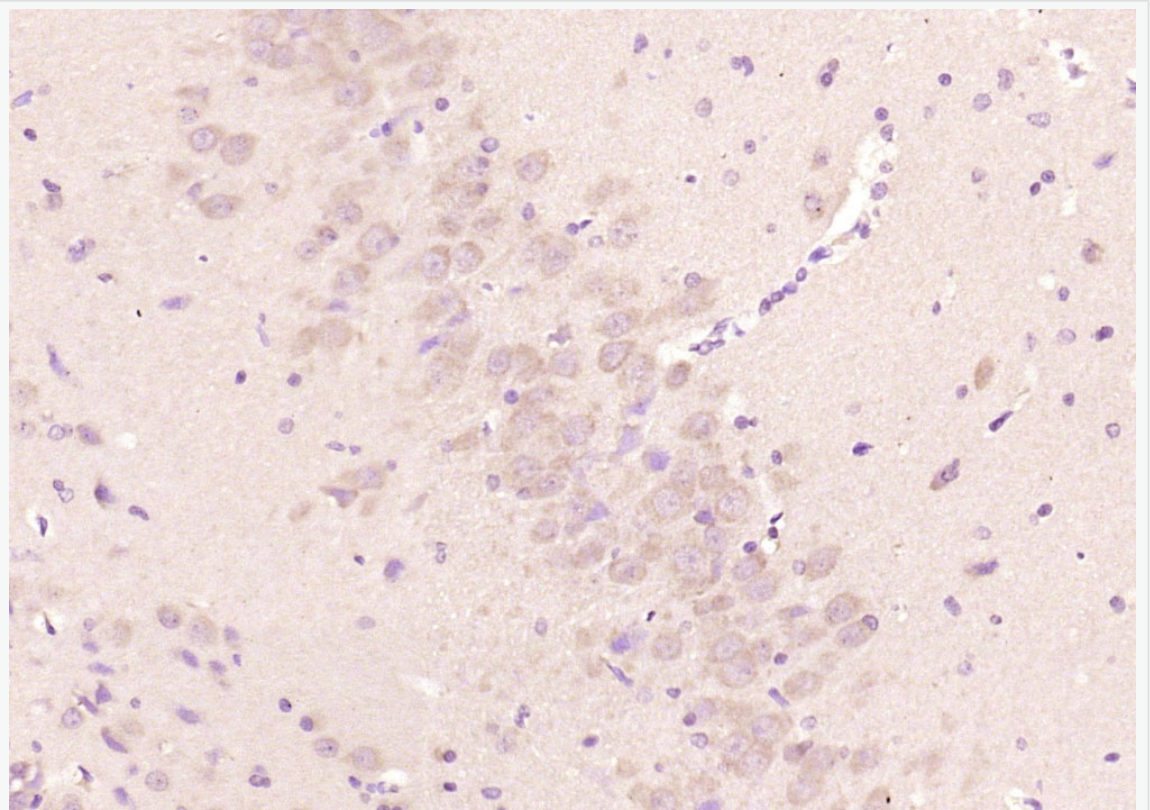
Lane 1: Recombinant human COX2 protein

Primary: Anti-Cyclooxygenase 2 (SL0732R) at 1/1000 dilution

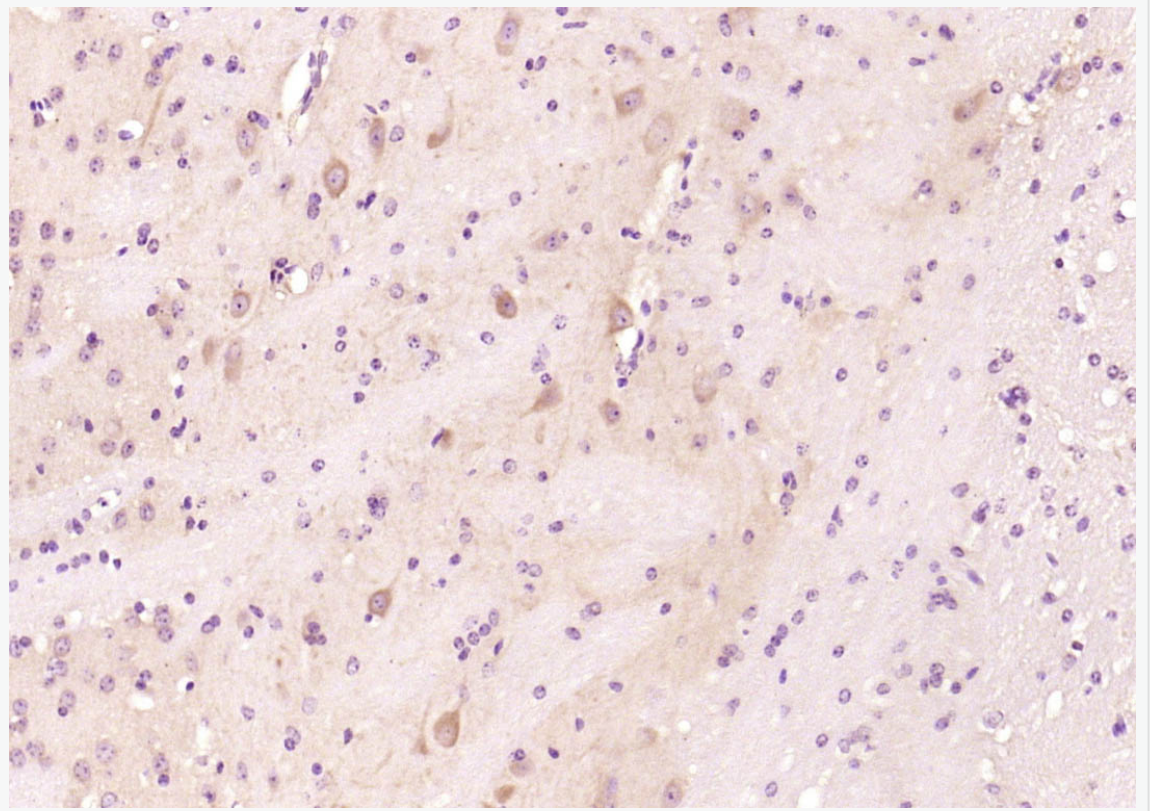
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 65 kD

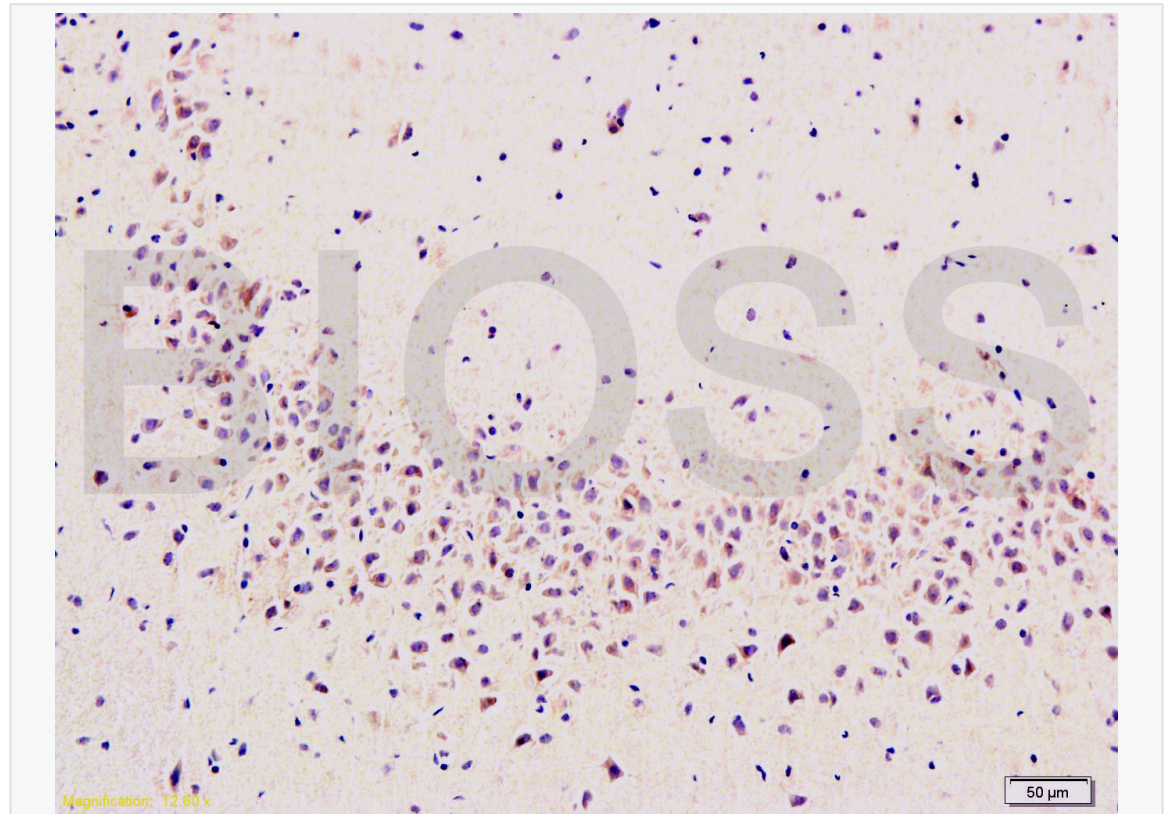
Observed band size: 40 kD



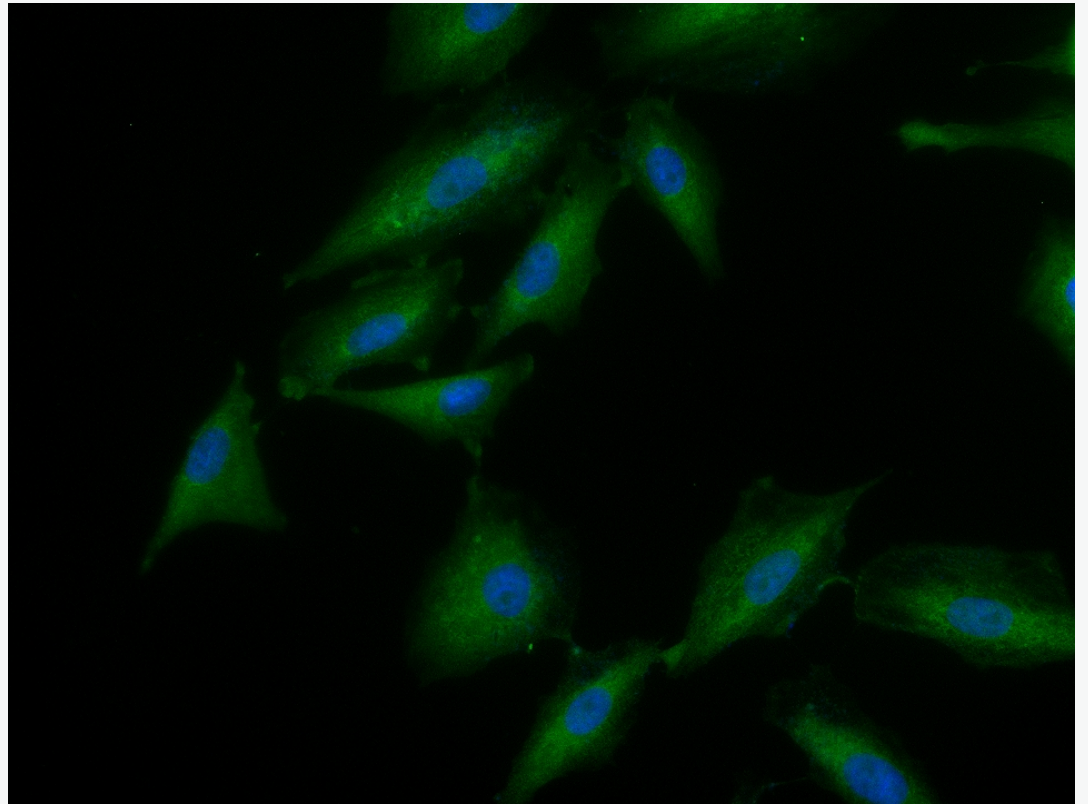
Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cyclooxygenase 2) Polyclonal Antibody, Unconjugated (SL0732R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



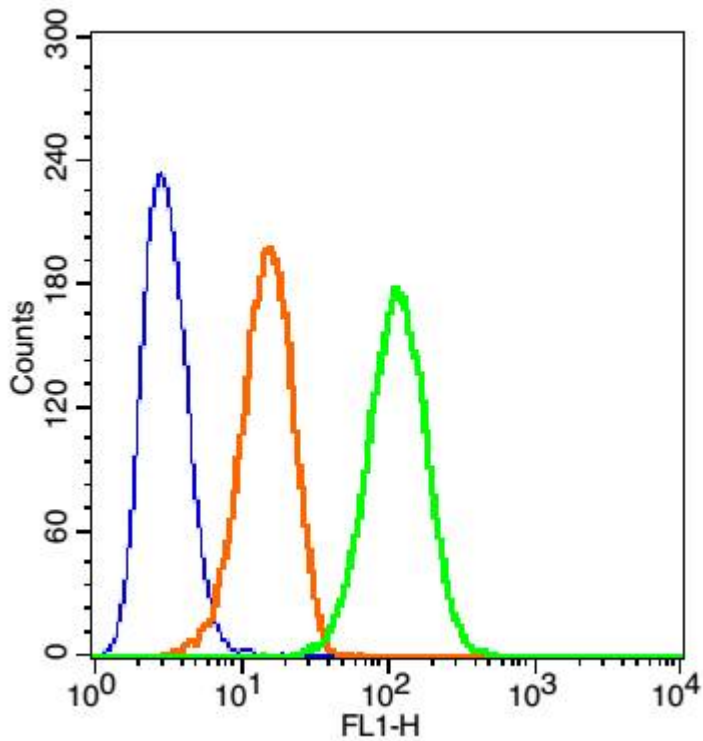
Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cyclooxygenase 2) Polyclonal Antibody, Unconjugated (SL0732R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat brain; 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) at 37°Cfor 20 min; Incubation: Anti-Cyclooxygenase 2 Polyclonal Antibody, Unconjugated(SL0732R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



A549 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Cyclooxygenase 2) polyclonal Antibody, Unconjugated (SL0732R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control (blue line): HepG2 (blue).

Primary Antibody (green line): Rabbit Anti-Cyclooxygenase 2/FITC Conjugated antibody (SL0732R-FITC)

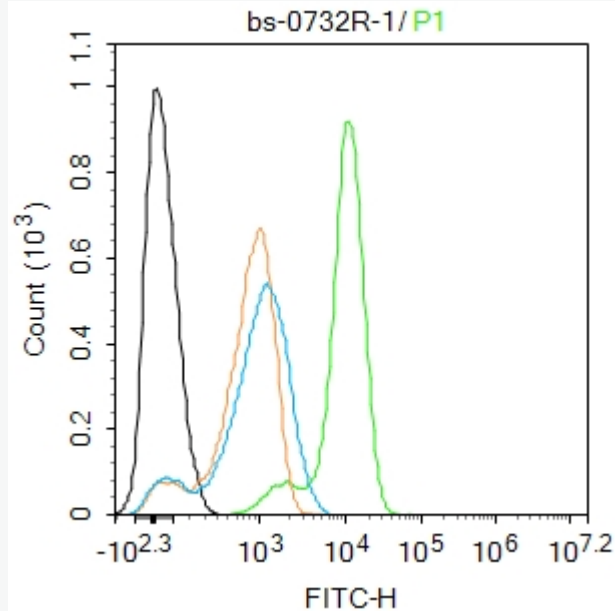
Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG-FITC .

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. Cells stained with Primary

Antibody for 30 min at room temperature.Acquisition of 20,000 events was performed.



Blank control:U937.

Primary Antibody (green line): Rabbit Anti-Cyclooxygenase 2 antibody (SL0732R)

Dilution: 1ug/Test;

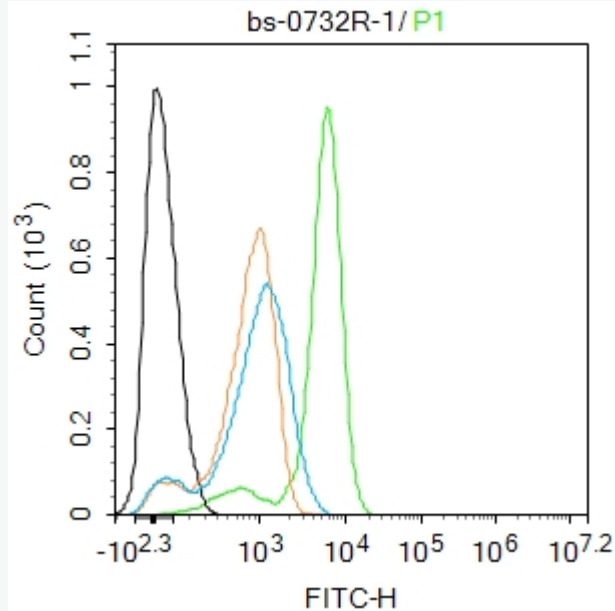
Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 0.5ug/Test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events

was performed.



Blank control:U937.

Primary Antibody (green line): Rabbit Anti-Cyclooxygenase 2 antibody (SL0732R)

Dilution: 1ug/Test;

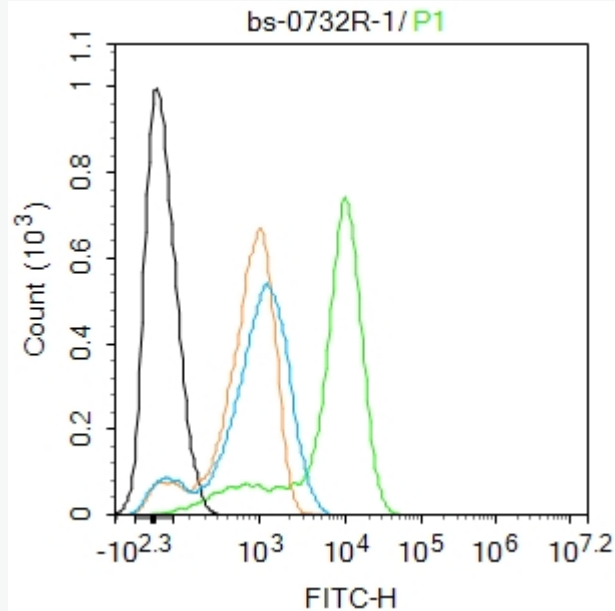
Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 0.5ug/Test.

Protocol

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Blank control:U937.

Primary Antibody (green line): Rabbit Anti-Cyclooxygenase 2 antibody (SL0732R)

Dilution: 1ug/Test;

Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 0.5ug/Test.

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was performed.