

Rabbit Anti-CDK8 antibody

SL0570R

Product Name CDK8

Chinese Name 周期素依赖性激酶 8 抗体

Alias Cyclin Dependent Kinase 8; Cell Division Kinase 8; Cell division protein kinase 8; K35; Mediator complex subunit CDK8; Mediator of RNA polymerase II transcription subunit CDK8; Protein kinase K35; CDK8_HUMAN; Cyclin-dependent kinase 8.

Research Area Tumour Cell biology Chromatin and nuclear signals Signal transduction Cyclin Kinases and Phosphatases

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human (predicted:Mouse,Rat,Chicken,Dog,Horse,Rabbit,Cat)

Applications IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 53kDa

Cellular localization The nucleus

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human CDK8: 251-350/464

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](#)

This gene encodes a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are known to be important regulators of cell cycle progression. This kinase and its regulatory subunit, cyclin C, are components of the Mediator transcriptional regulatory complex, involved in both transcriptional activation and repression by phosphorylation of the carboxy-terminal domain of the largest subunit of RNA polymerase II. This kinase regulates transcription by targeting the cyclin-dependent kinase 7 subunits of the general transcription initiation factor IIH, thus providing a link between the Mediator complex and the basal transcription machinery. Multiple pseudogenes of this gene have been identified. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2016][provided by RefSeq, Jul 2008].

Function:

Component of the Mediator complex, a coactivator involved in regulated gene transcription of nearly all RNA polymerase II-dependent genes. Mediator functions as a bridge to convey information from gene-specific regulatory proteins to the basal RNA polymerase II transcription machinery. Mediator is recruited to promoters by direct interactions with regulatory proteins and serves as a scaffold for the assembly of a functional preinitiation complex with RNA polymerase II and the general transcription factors. Phosphorylates the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II), which may inhibit the formation of a transcription initiation complex. Phosphorylates CCNH leading to down-regulation of the TFIID complex and transcriptional repression. Recruited through interaction with MAML1 to hyperphosphorylate the intracellular domain of NOTCH, leading to its degradation.

**Product
Detail**

Subunit:

Component of the Mediator complex, which is composed of MED1, MED4, MED6, MED7, MED8, MED9, MED10, MED11, MED12, MED13, MED13L, MED14, MED15, MED16, MED17, MED18, MED19, MED20, MED21, MED22, MED23, MED24, MED25, MED26, MED27, MED29, MED30, MED31, CCNC, CDK8 and CDC2L6/CDK11. The MED12, MED13, CCNC and CDK8 subunits form a distinct module termed the CDK8 module. Mediator containing the CDK8 module is less active than Mediator lacking this module in supporting transcriptional activation. Individual preparations of the Mediator complex lacking one or more distinct subunits have been variously termed ARC, CRSP, DRIP, PC2, SMCC and TRAP. The cyclin/CDK pair formed by CCNC/CDK8 also associates with the large subunit of RNA polymerase II. Interacts with CTNNB1, GLI3 and MAML1.

Subcellular Location:

Nucleus (Probable).

Similarity:

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.
Contains 1 protein kinase domain.

SWISS:

P49336

Gene ID:

1024

Database links:

[Entrez Gene: 1024](#) Human

[Entrez Gene: 264064](#) Mouse

[Omim: 603184](#) Human

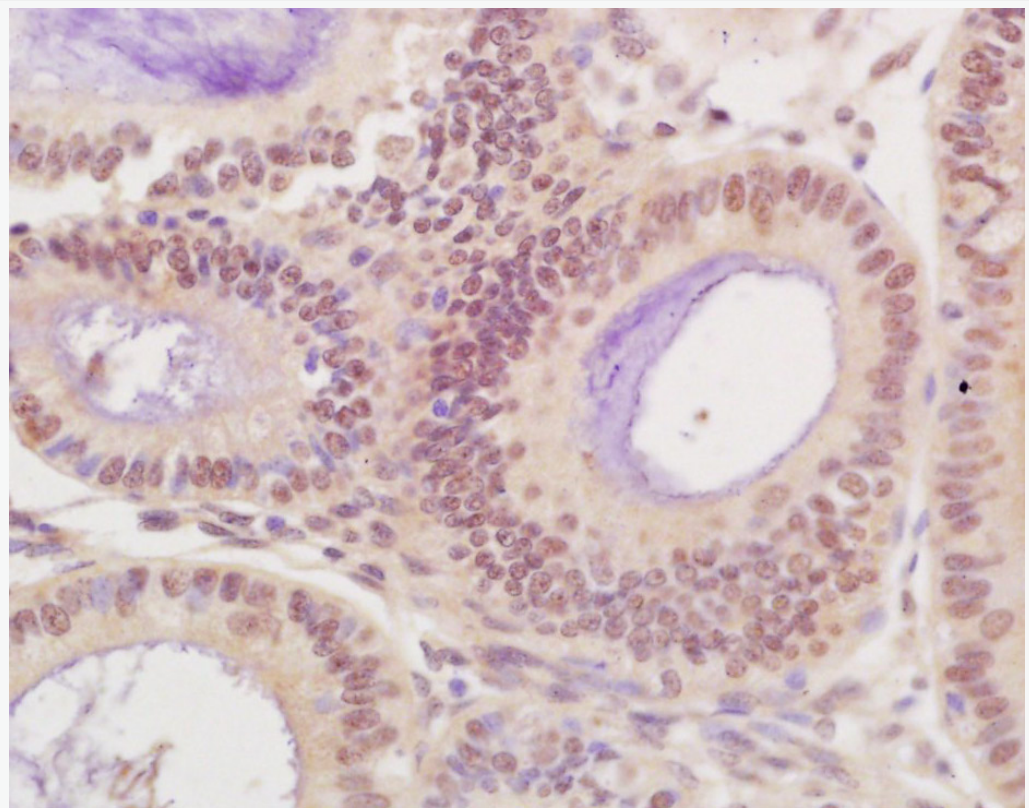
[SwissProt: P49336](#) Human

[SwissProt: Q8R3L8](#) Mouse

[Unigene: 382306](#) Human

[Unigene: 260576](#) Mouse

**Product
Picture**



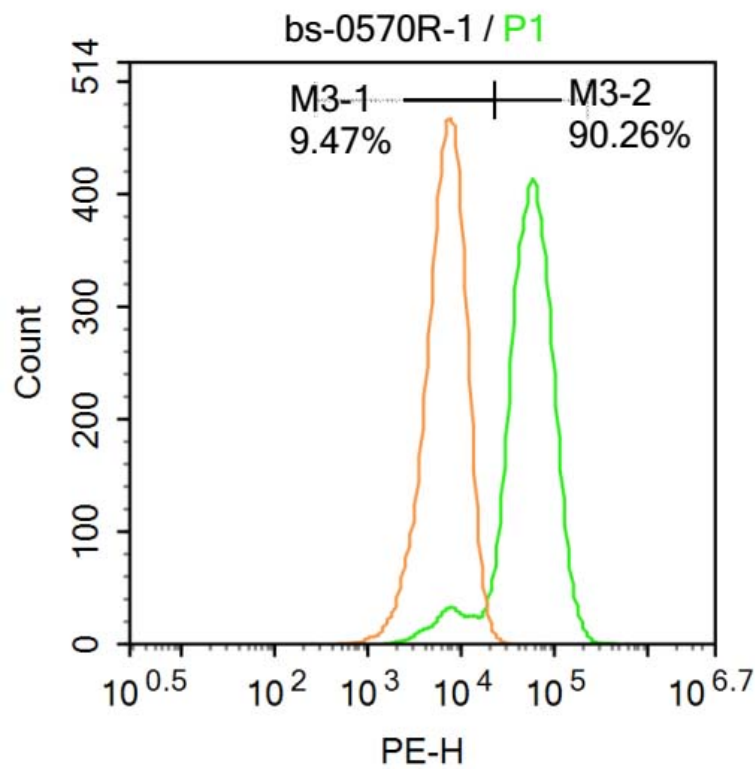
Tissue/cell: human breast carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

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) at 37°C for 20 min;

Incubation: Anti-CDK8 Polyclonal Antibody, Unconjugated(SL0570R)

1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control:Molt-4.

Primary Antibody (green line): Rabbit Anti-CDK8 antibody (SL0570R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

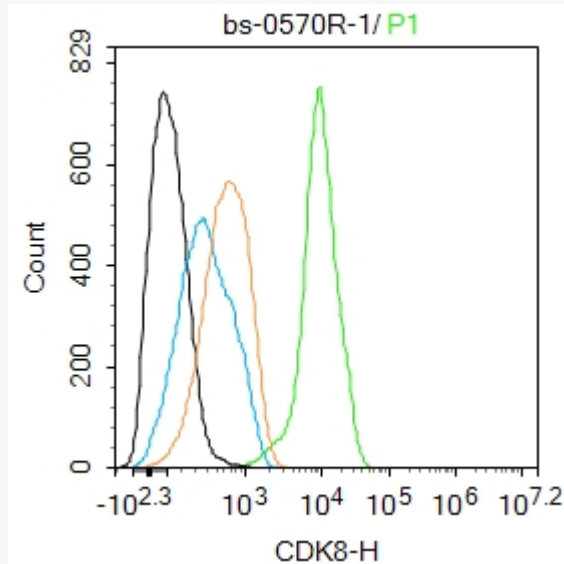
Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. 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:K562.

Primary Antibody (green line): Rabbit Anti-CDK8 antibody (SL0570R)

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 90% ice-cold methanol for 20 min at -20°C.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



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min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.