

**Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10)**  
**Catalog # ABO16269****Specification****Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC                |
| Primary Accession | <a href="#">P53999</a> |
| Host              | Mouse                  |
| Isotype           | Mouse IgG2b            |
| Reactivity        | Rat, Human, Mouse      |
| Clonality         | Monoclonal             |
| Format            | Lyophilized            |

**Description**

Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) . Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.

**Reconstitution**

Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

**Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) - Additional Information**

**Gene ID** 10923

**Other Names**

Activated RNA polymerase II transcriptional coactivator p15, Positive cofactor 4, PC4, SUB1 homolog, p14, SUB1, PC4, RPO2TC1

**Calculated MW**

18 kDa KDa

**Application Details**

Western blot, 0.25-0.5 µg/ml, Human<br> Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Mouse, Rat<br>

**Contents**

Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

**Immunogen**

E.coli-derived human PC4/SUB1 recombinant protein (Position: N62-L127).

**Purification**

Immunogen affinity purified.

**Storage**

**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.**

**Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) - Protein Information****Name** SUB1**Synonyms** PC4, RPO2TC1**Function**

General coactivator that functions cooperatively with TAFs and mediates functional interactions between upstream activators and the general transcriptional machinery. May be involved in stabilizing the multiprotein transcription complex. Binds single-stranded DNA. Also binds, in vitro, non-specifically to double-stranded DNA (ds DNA).

**Cellular Location**

Nucleus.

**Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

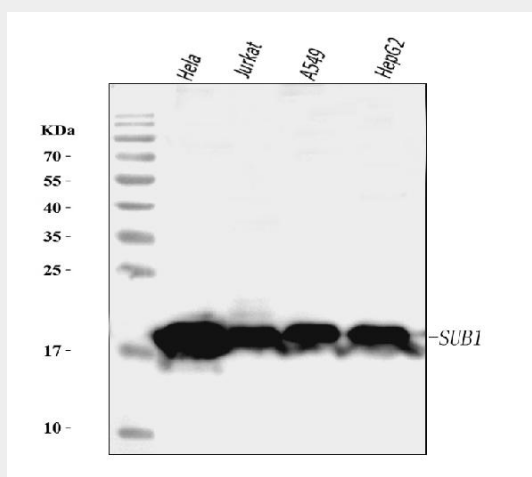
**Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) - Images**

Figure 1. Western blot analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,  
Lane 2: human Jurkat whole cell lysates,  
Lane 3: human A549 whole cell lysates,  
Lane 4: human HepG2 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-PC4/SUB1 antigen affinity purified monoclonal antibody (Catalog # M02698-2) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for PC4/SUB1 at approximately 18 kDa. The expected band size for PC4/SUB1 is at 18 kDa.

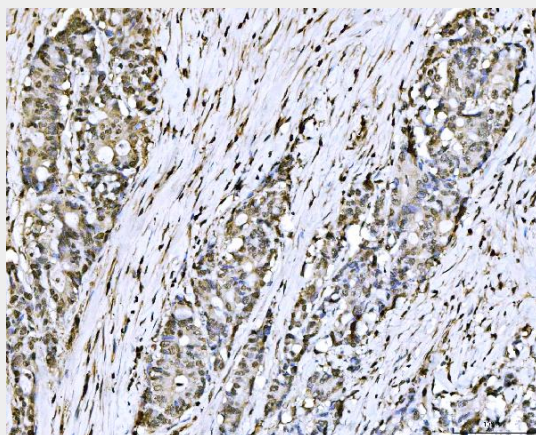


Figure 2. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2). PC4/SUB1 was detected in a paraffin-embedded section of human colonic adenoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

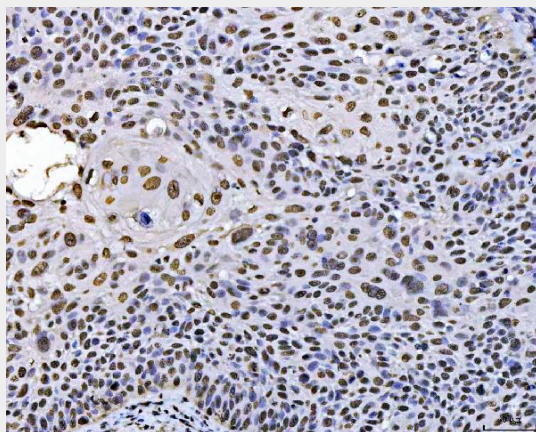


Figure 3. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2). PC4/SUB1 was detected in a paraffin-embedded section of human laryngeal squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

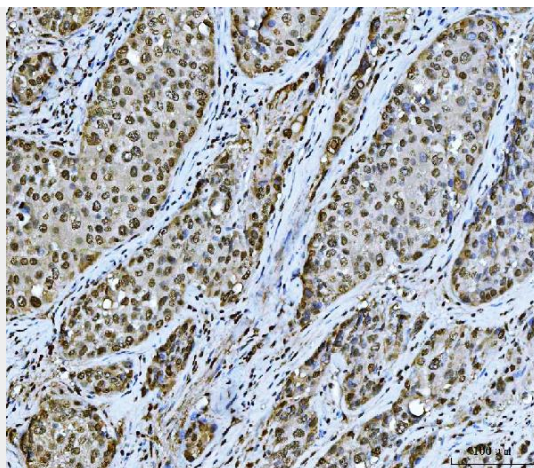


Figure 4. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2).

PC4/SUB1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 μg/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

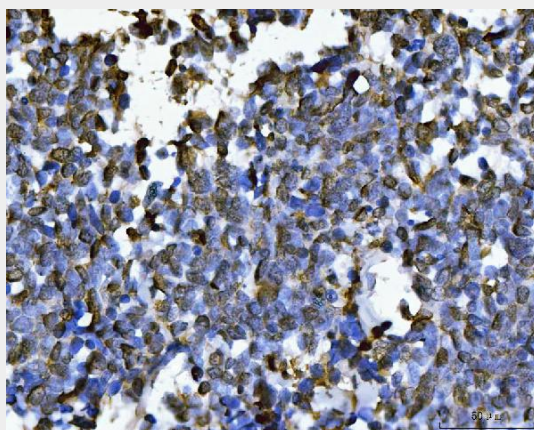


Figure 5. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2).

PC4/SUB1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 μg/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

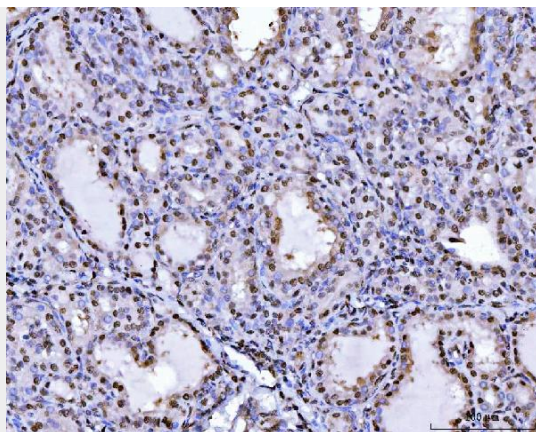


Figure 6. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2). PC4/SUB1 was detected in a paraffin-embedded section of human poison impregnated thyroid gland tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu$ g/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

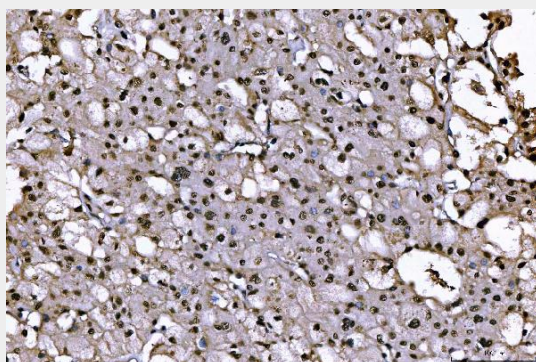


Figure 7. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2). PC4/SUB1 was detected in a paraffin-embedded section of human renal cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2  $\mu$ g/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

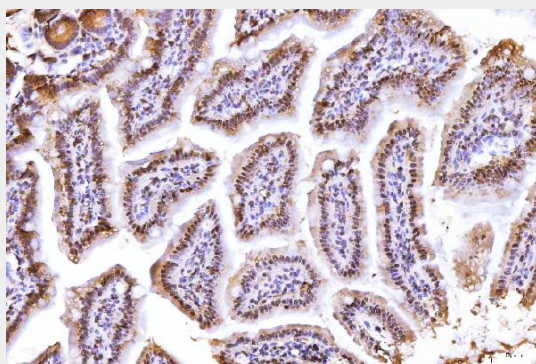


Figure 8. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2).

PC4/SUB1 was detected in a paraffin-embedded section of mouse colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

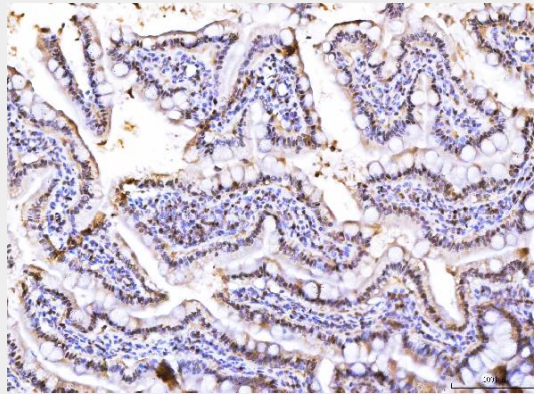


Figure 9. IHC analysis of PC4/SUB1 using anti-PC4/SUB1 antibody (M02698-2).

PC4/SUB1 was detected in a paraffin-embedded section of rat colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-PC4/SUB1 Antibody (M02698-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

#### **Anti-PC4/SUB1 Antibody Picoband™ (monoclonal, 6B5B10) - Background**

Activated RNA polymerase II transcriptional coactivator p15, also known as positive cofactor 4 (PC4) or SUB1 homolog, is a protein that in humans is encoded by the SUB1 gene. This gene is mapped to 5p13.3. The transcriptional cofactor PC4 is an ancient single-strand DNA (ssDNA)-binding protein that has a homologue in bacteriophage T5 where it is likely the elusive replicative ssDNA-binding protein. The recombinant PC4 is shown to function identically to the native protein through its interaction with TAFs.