abcam

# ab183338

# Anti-Cyclin D3/CCND3 antibody [SP207]

Recombinant | RabMAb | KO Validated | 20ul selling size

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | SP207 |
| **Purification technique** | Affinity purification Protein A/G |
| **Concentration** | 0.082 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |
| **Purification notes** | Purified from TCS by protein A/G. |

## Reactivity data

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 |

| | |
|---|---|
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat, Cow |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat, Cow |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 |
| **Notes** | Boil tissue section in EDTA buffer, pH 8.0 for 10 min followed by cooling at room temperature for 20 min. |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat, Cow |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information G1/S-specific cyclin-D3

| | |
|---|---|
| **Function** | Regulatory component of the cyclin D3-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G(1)/S transition (PubMed:8114739). Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase (PubMed:8114739). Hypophosphorylates RB1 in early G(1) phase (PubMed:8114739). Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals (PubMed:8114739). Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex (PubMed:16782892). Shows transcriptional coactivator activity with ATF5 independently of CDK4 (PubMed:15358120). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Notes

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

We do not recommend this combination. It is not covered by our product promise.

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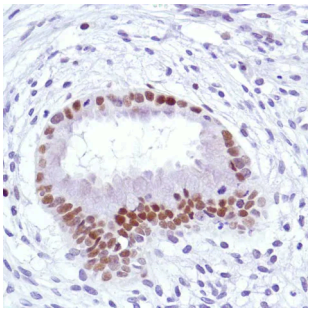
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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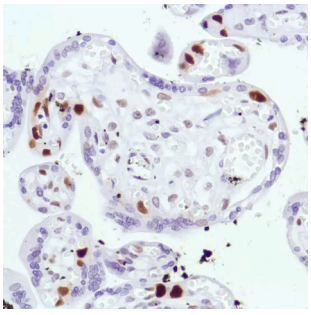
## 14 product images



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Immunohistochemical analysis of paraffin-embedded human uterus tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.

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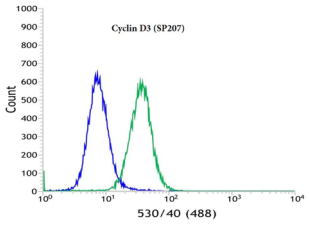


### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Immunohistochemical analysis of paraffin-embedded human placenta tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.

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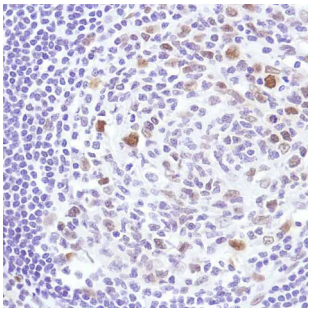



## Flow Cytometry (Intracellular) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Flow Cytometry (Intracellular) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Flow cytometric analysis of K562 (Human chronic myelogenous leukemia cell line from bone marrow) cells labeling Cyclin D3/CCND3 with ab183338 diluted 1/100 (green) compared with a negative control of anti-rabbit IgG (blue).

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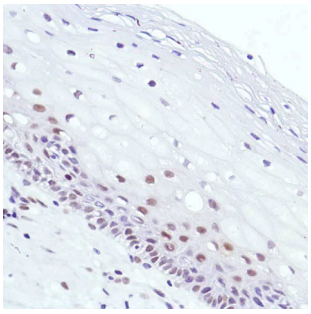


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Immunohistochemical analysis of paraffin-embedded human reactive lymph node tissue labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.

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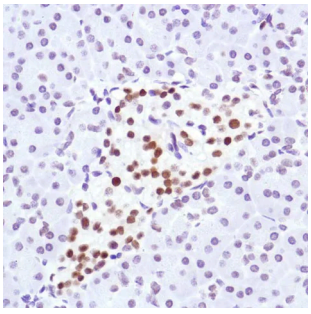


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Immunohistochemical analysis of paraffin-embedded human cervix tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.

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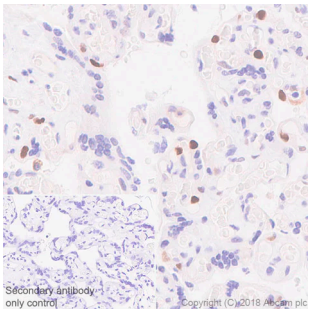


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Immunohistochemical analysis of paraffin-embedded human pancreas tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.

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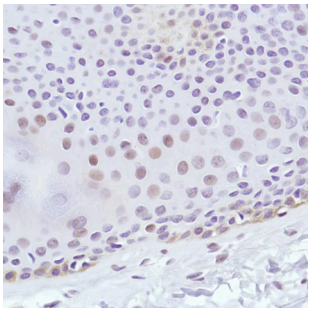



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human placenta tissue sections labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution (3.35 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

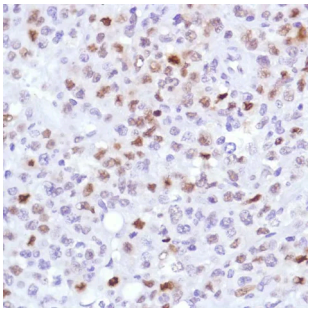
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## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

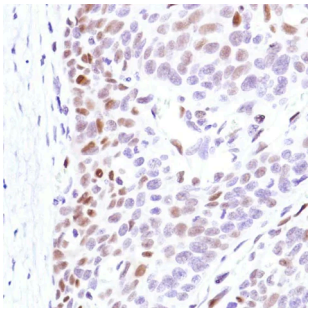
Immunohistochemical analysis of paraffin-embedded human skin tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

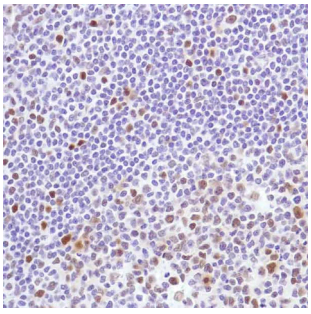
Immunohistochemical analysis of paraffin-embedded human B-cell lymphoma tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

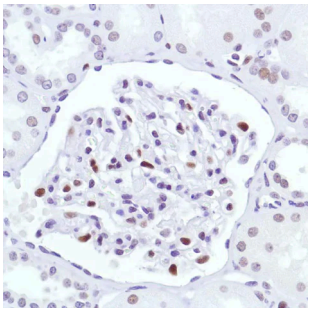
Immunohistochemical analysis of paraffin-embedded human cervical squamous cell carcinoma tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

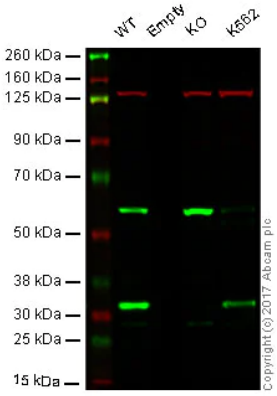
Immunohistochemical analysis of paraffin-embedded human tonsil tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Cyclin D3/CCND3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cyclin D3/CCND3 antibody

Immunohistochemical analysis of paraffin-embedded human kidney tissue, labeling Cyclin D3/CCND3 with ab183338 at 1/100 dilution.




## Western blot - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

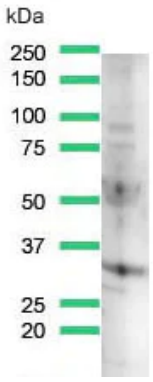
Cyclin D3/CCND3 Western blot staining using rabbit Anti-Cyclin D3/CCND3 antibody

**Lane 1:** Wild type HAP1 whole cell lysate (20 µg)
**Lane 2:** Empty Lane
**Lane 3:** CCND3 knockout HAP1 whole cell lysate (20 µg)
**Lane 4:** K562 whole cell lysate (20 µg)
**Lanes 1 - 4:** Merged signal (red and green). Green - ab183338 observed at 33 kDa. Red - loading control, ab18058, observed at 130 kDa.

ab183338 was shown to recognize empty when empty knockout samples were used, along with additional cross-reactive bands. Wild-type and empty knockout samples were subjected to SDS-PAGE. ab183338 and Mouse anti Vinculin loading control were incubated overnight at 4°C at 100 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

Predicted band size: 33 kDa




## Western blot - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338)

All lanes:
Western blot - Anti-Cyclin D3/CCND3 antibody [SP207] (ab183338) at 1/100 dilution

All lanes:
K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate

Predicted band size: 33 kDa

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