abcam

# ab238121

# Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13]

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR20918-13 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.565 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/30 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat, Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

### Not recommended

| | |
|---|---|
| **Species** | Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Transfected cell lysate - Human |
| **Dilution info** | 1/1000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/1000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/1000 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Mouse, Human, Rat, Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Not recommended

| | |
|---|---|
| **Species** | Mouse, Rat, Human, Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## IHC-Fr

### Not recommended

| | |
|---|---|
| **Species** | Mouse, Rat, Human, Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/500 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/500 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | Use at an assay dependent concentration. |

| | |
|---|---|
| **Notes** | - |

### Not recommended

| | |
|---|---|
| **Species** | Transfected cell lysate - Human |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information CSNK1G2

| | |
|---|---|
| **Function** | Serine/threonine-protein kinase. Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. It can phosphorylate a large number of proteins. Participates in Wnt signaling (By similarity). Phosphorylates COL4A3BP/CERT, MTA1 and SMAD3. SMAD3 phosphorylation promotes its ligand-dependent ubiquitination and subsequent proteasome degradation, thus inhibiting SMAD3-mediated TGF-beta responses. Hyperphosphorylation of the serine-repeat motif of COL4A3BP/CERT leads to its inactivation by dissociation from the Golgi complex, thus down-regulating ER-to-Golgi transport of ceramide and sphingomyelin synthesis. Triggers PER1 proteasomal degradation probably through phosphorylation (PubMed:15077195, PubMed:15917222, PubMed:18794808, PubMed:19005213). Involved in brain development and vesicular trafficking and neurotransmitter releasing from small synaptic vesicles. Regulates fast synaptic transmission mediated by glutamate (By similarity). Involved in regulation of reactive oxygen species (ROS) levels (PubMed:37099597). |

## 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

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**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**

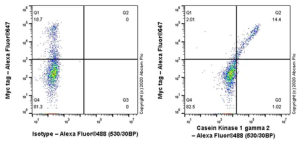
We do not recommend this combination. It is not covered by our product promise.

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.

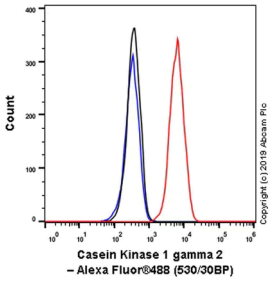
## 5 product images



### Flow Cytometry (Intracellular) - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121)

Casein Kinase 1 gamma 2 Flow Cytometry (Intracellular) staining using rabbit Anti-Casein Kinase 1 gamma 2 antibody

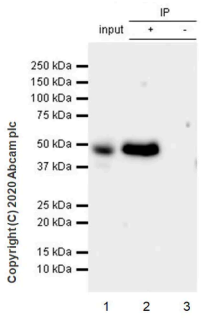
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol-permeabilized HEK-293T (Human embryonic kidney epithelial cell) cells (transfected with myc-tagged Casein Kinase 1 gamma 2 construct) labelling Casein Kinase 1 gamma 2 with ab238121 at 1/500 dilution (Right) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Left).
A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.




## Flow Cytometry (Intracellular) - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121)

Casein Kinase 1 gamma 2 Flow Cytometry (Intracellular) staining using rabbit Anti-Casein Kinase 1 gamma 2 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol-permeabilized MEF (Mouse embryonic fibroblast (immortalized) cells labelling Casein Kinase 1 gamma 2 with ab238121 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.




## Immunoprecipitation - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121)

Casein Kinase 1 gamma 2 was immunoprecipitated from 0.35 mg mouse testis tissue lysate with ab238121 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab238121 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.
Lane 1: Mouse testis tissue lysate 10 ug

Lane 2: ab238121 IP in mouse testis tissue lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab238121 in mouse testis tissue lysate

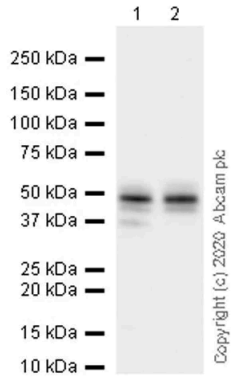
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 32 seconds.

All lanes:
Immunoprecipitation - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121)

Predicted band size: 47 kDa

Observed band size: 50 kDa




## Western blot - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121)

Casein Kinase 1 gamma 2 Western blot staining using rabbit Anti-Casein Kinase 1 gamma 2 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Exposure time: 10 seconds.

All lanes:
Western blot - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 20 µg

Lane 2:
Rat testis tissue lysate at 20 µg

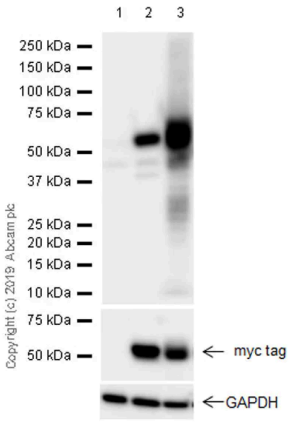
Secondary

Lane 1:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Lane 2:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa




## Western blot - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121)

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 seconds.

All lanes:
Western blot - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] (ab238121) at 1/1000 dilution

Lane 1:
HEK-293T (human embryonic kidney) transfected with an empty vector (vector control), containing a myc- tag®, whole cell lysate at 20 µg

Lane 2:
HEK-293T transfected with human Casein Kinase 1 gamma 2 (WT) expression vector containing a myc-tag®, whole cell lysate at 20 µg

Lane 3:
HEK-293T transfected with mouse Casein Kinase 1 gamma 2 (WT) expression vector containing a myc-tag®, whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 47 kDa

Observed band size: 50 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.