abcam

ab270040

Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR20918-13
Purification technique	Affinity purification Protein A

Reactivity data

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

WB

Expected

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

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Predicted

Species	Rat
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 Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab270040 is the carrier-free version of ab238121.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

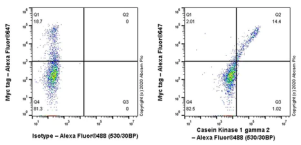
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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3 product images

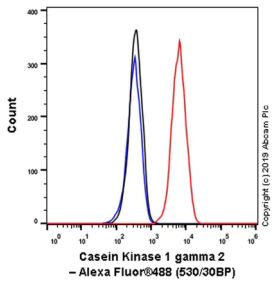


Flow Cytometry (Intracellular) - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] - BSA and Azide free (ab270040)

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.

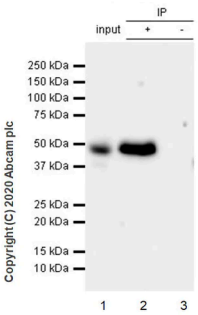
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab238121).



Flow Cytometry (Intracellular) - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] - BSA and Azide free (ab270040)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab238121).



Immunoprecipitation - Anti-Casein Kinase 1 gamma 2 antibody [EPR20918-13] - BSA and Azide free (ab270040)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab238121).

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

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'.