

## Product datasheet

# Anti-DGKZ/DGK-zeta antibody [EPR22040-72] ab239080

Recombinant RabMAb

[2 References](#) [8 Images](#)

### Overview

<b>Product name</b>	Anti-DGKZ/DGK-zeta antibody [EPR22040-72]
<b>Description</b>	Rabbit monoclonal [EPR22040-72] to DGKZ/DGK-zeta
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IHC-P, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Jurkat and HuT-78 whole cell lysate; Human, mouse and rat Cerebellum tissue lysate; Mouse and rat brain tissue lysate; Mouse thymus tissue lysate. IHC-P: Human tonsil and cerebellum tissue. Mouse and rat brain tissue. Flow Cyt (intra): Jurkat cells. IP: Jurkat whole cell lysate.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22040-72

Isotype IgG

## Applications

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**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab239080 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/600.
WB		1/1000. Predicted molecular weight: 124 kDa.
IHC-P		1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.

## Target

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<b>Function</b>	Displays a strong preference for 1,2-diacylglycerols over 1,3-diacylglycerols, but lacks substrate specificity among molecular species of long chain diacylglycerols. Isoform 2 but not isoform 1 regulates RASGRP1 activity.
<b>Tissue specificity</b>	Highest levels in brain, and substantial levels in skeletal muscle, heart, and pancreas. Isoform 1 is predominantly expressed in muscle.
<b>Sequence similarities</b>	Belongs to the eukaryotic diacylglycerol kinase family. Contains 2 ANK repeats. Contains 1 DAGKc domain. Contains 2 phorbol-ester/DAG-type zinc fingers.
<b>Post-translational modifications</b>	Phosphorylation of the MARCKS homology domain by PKC reduces nuclear accumulation of DGK-zeta.
<b>Cellular localization</b>	Cytoplasm. Nucleus. Cell membrane.

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## Images

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Immunoprecipitation - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

DGKZ/DGK-zeta was immunoprecipitated from 0.35 mg of Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate with ab239080 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab239080 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

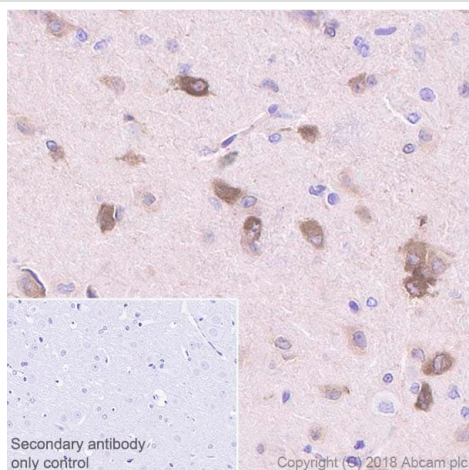
**Lane 1:** Jurkat whole cell lysate 10 µg (input).

**Lane 2:** ab239080 IP in Jurkat whole cell lysate.

**Lane 3:** Rabbit monoclonal IgG ([ab172730](#)) instead of ab239080 in Jurkat whole cell lysate (-).

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

Exposure time: 15 seconds.



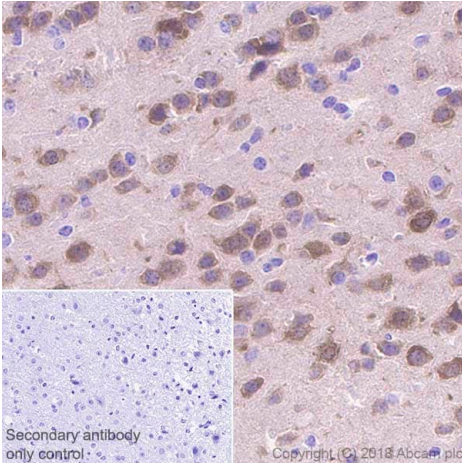
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

Immunohistochemical analysis of paraffin-embedded rat brain tissue labeling DGKZ/DGK-zeta with ab239080 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Cytoplasmic staining on neurons of rat brain (PMID: 14511325) (PMID: 24119575) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

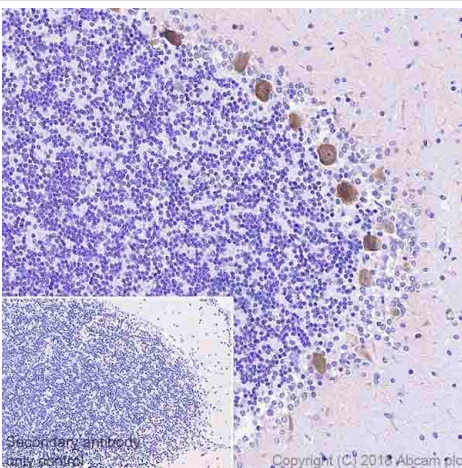


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

Immunohistochemical analysis of paraffin-embedded mouse brain tissue labeling DGKZ/DGK-zeta with ab239080 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Cytoplasmic and nuclear staining on neurons of mouse brain (PMID: 14511325) (PMID: 24119575) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

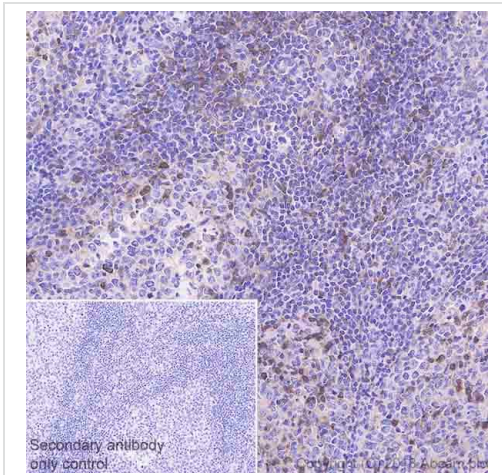


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

Immunohistochemical analysis of paraffin-embedded human cerebellum tissue labeling DGKZ/DGK-zeta with ab239080 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Cytoplasmic and nuclear staining on Purkinje cells of human cerebellum (PMID: 14511325) (PMID: 24119575) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



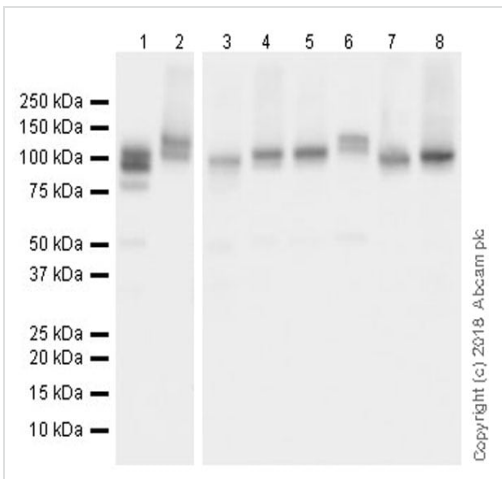
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling DGKZ/DGK-zeta with ab239080 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Cytoplasmic staining on subset of immune cells in human tonsil (PMID: 24573202) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

**All lanes** : Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080) at 1/1000 dilution

**Lane 1** : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate

**Lane 2** : HuT-78 (human Sezary syndrome cutaneous T lymphocyte), whole cell lysate

**Lane 3** : Human cerebellum tissue lysate

**Lane 4** : Mouse brain tissue lysate

**Lane 5** : Mouse cerebellum tissue lysate

**Lane 6** : Mouse thymus tissue lysate

**Lane 7** : Rat brain tissue lysate

**Lane 8** : Rat cerebellum tissue lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

**Predicted band size:** 124 kDa

**Observed band size:** 90-130 kDa

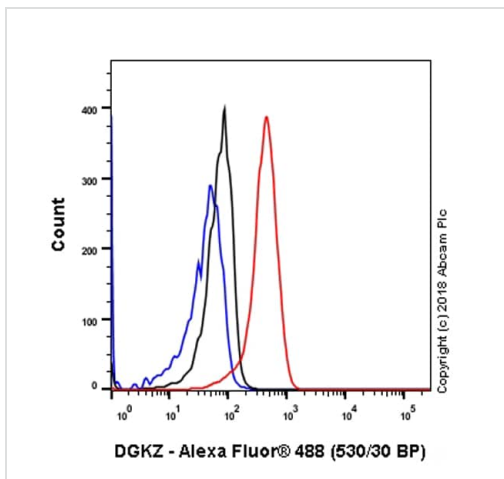
Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

Exposure time:

Lane 1-2: 15 seconds.

Lane 3-8: 3 seconds.

The lysates were not boiled to prevent the target protein from aggregation. Multiple bands are likely due to isoforms and phosphorylation. The molecular mass of human DGKZ / DGK-zeta is also predicated to be larger than that of rodents. The molecular profile/weight observed is consistent with what has been described in the literature (PMID: 12070163, PMID: 14511325, PMID: 9657393).



Flow Cytometry (Intracellular) - Anti-DGKZ/DGK-zeta antibody [EPR22040-72] (ab239080)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized Jurkat (human T cell leukemia cell line from peripheral blood) cell line labeling DGKZ/DGK-zeta with ab239080 at 1/600 dilution (Red) compared with a Rabbit monoclonal IgG (**ab172730**, Black) isotype control, and an unlabeled control (Cell without incubation with primary antibody and secondary antibody, Blue).

Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 was used as the secondary antibody.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-DGKZ/DGK-zeta antibody [EPR22040-72]  
(ab239080)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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