abcam

ab254297

Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22]

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	EPR23275-22
Purification technique	Affinity purification Protein A
Concentration	0.517 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant full length protein - Human
Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Recombinant full length protein - Human
Dilution info	-

Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat, Recombinant full length protein - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information PELI1

Function	E3 ubiquitin ligase catalyzing the covalent attachment of ubiquitin moieties onto substrate proteins (PubMed:12496252, PubMed:17675297, PubMed:29883609, PubMed:30952868). Involved in the TLR and IL-1 signaling pathways via interaction with the complex containing IRAK kinases and TRAF6 (PubMed:12496252,

PubMed:17675297). Acts as a positive regulator of inflammatory response in microglia through activation of NF-kappa-B and MAP kinase (By similarity). Mediates 'Lys-63'-linked polyubiquitination of IRAK1 allowing subsequent NF-kappa-B activation (PubMed:12496252, PubMed:17675297). Conjugates 'Lys-63'-linked ubiquitin chains to the adapter protein ASC/PYCARD, which in turn is crucial for NLRP3 inflammasome activation (PubMed:34706239). Mediates 'Lys-48'-linked polyubiquitination of RIPK3 leading to its subsequent proteasome-dependent degradation; preferentially recognizes and mediates the degradation of the 'Thr-182' phosphorylated form of RIPK3 (PubMed:29883609). Negatively regulates necroptosis by reducing RIPK3 expression (PubMed:29883609). Mediates 'Lys-63'-linked ubiquitination of RIPK1 (PubMed:29883609). Following phosphorylation by ATM, catalyzes 'Lys-63'-linked ubiquitination of NBN, promoting DNA repair via homologous recombination (PubMed:30952868). Negatively regulates activation of the metabolic mTORC1 signaling pathway by mediating 'Lys-63'-linked ubiquitination of mTORC1-inhibitory protein TSC1 and thereby promoting TSC1/TSC2 complex stability (PubMed:33215753).

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Pellino 1 and Pellino 2 are E3 ubiquitin ligases known for their roles in mediating immune responses. Alternate names for Pellino proteins include PEK and PELI. Pellino 1 has a molecular mass of approximately 47 kDa while Pellino 2 has a mass around 45 kDa. These proteins localize mainly in the cytoplasm and nucleus of immune cells such as macrophages and dendritic cells. They participate in transmitting signals from receptors to downstream signaling proteins essential for regulating immune pathways.
Biological function summary	These proteins play significant roles in controlling the TLR/IL-1 signaling pathway. Pellino 1 and Pellino 2 can form complexes with other signaling intermediates like IRAK1 and TRAF6 which are key components in innate immunity. They add ubiquitin molecules to specific target proteins thereby modulating their stability and activity. This ubiquitination process is important in facilitating the proper response to infections.
Pathways	Pellino 1 and Pellino 2 are integral to the NF-kB and MAPK signaling pathways both of which are central to immune response regulation. They interact with proteins like IRAK1 to promote activation of these pathways leading to gene expression necessary for inflammation and defense mechanisms. This regulation ensures that cells mount an appropriate immune response against pathogens and maintain homeostasis.
Associated diseases and disorders	Impaired function or regulation of Pellino proteins links to autoimmune diseases such as rheumatoid arthritis and inflammatory disorders like Crohn's disease. These conditions involve inappropriate activation of immune pathways where increased Pellino activity can exacerbate inflammatory responses. Pellino proteins connect with TNF-alpha a cytokine prominent in these disorders highlighting their critical roles in disease modulation.

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

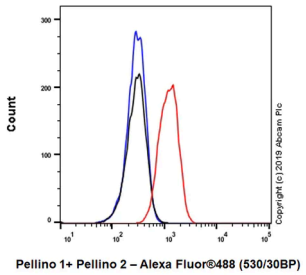
We do not recommend this combination. It is not covered by our product promise.

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.

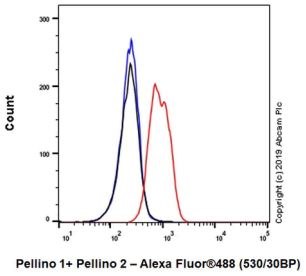
6 product images



Flow Cytometry (Intracellular) - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Pellino 1 + Pellino 2 Flow Cytometry (Intracellular) staining using rabbit Anti-Pellino 1 + Pellino 2 antibody

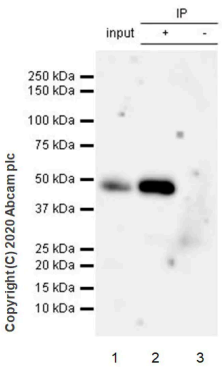
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized Ramos (Human Burkitt's lymphoma B lymphocyte) cells labelling Pellino 1+ Pellino 2 with ab254297 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an 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.



Flow Cytometry (Intracellular) - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Pellino 1 + Pellino 2 Flow Cytometry (Intracellular) staining using rabbit Anti-Pellino 1 + Pellino 2 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized Daudi (Human Burkitt's lymphoma lymphoblast) cells labelling Pellino 1+ Pellino 2 with ab254297 at 1/50 dilution (1ug) (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-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Pellino 1+ Pellino 2 was immunoprecipitated from 0.35 mg Daudi (human burkitt's lymphoma lymphoblast) whole cell lysate with ab254297 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using 254297 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: Daudi (human burkitt's lymphoma lymphoblast) whole cell lysate 10 ug

Lane 2: 254297 IP in Daudi whole cell lysate

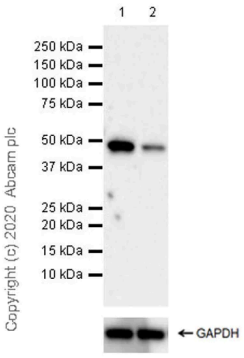
Lane 3:Rabbit monoclonal IgG (ab172730) instead of ab254297 in Daudi whole cell lysate

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

Exposure time: 110 seconds.

All lanes:
Immunoprecipitation - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Observed band size: 46 kDa



Western blot - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Pellino 1 + Pellino 2 Western blot staining using rabbit Anti-Pellino 1 + Pellino 2 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Low expression control: Raji (PMID: 25295537).

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID: 25295537, 21204785, 28009353).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297) at 1/1000 dilution

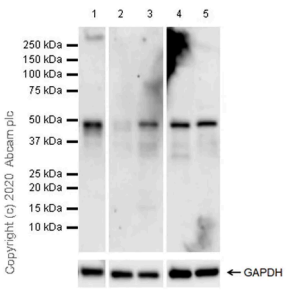
Lane 1:
Ramos (human burkitts lymphoma b lymphocyte) whole cell lysate at 20 µg

Lane 2:
Raji (human burkitts lymphoma b lymphocyte) whole cell lysate at 20 µg

Secondary

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

Observed band size: 46 kDa



Western blot - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 25295537, 21204785, 28009353)

This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297) at 1/1000 dilution

Lane 1:
Daudi (human burkitts lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 2:
Untreated RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 20 µg

Lane 3:
RAW 264.7 treated with 100 ng/ml LPS for 7 hours whole cell lysate at 20 µg

Lane 4:
C6 (rat glial tumor glial cell) whole cell lysate at 20 µg

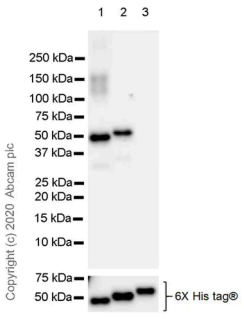
Lane 5:
PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Secondary

Lanes 1 - 2:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Lanes 3 - 5:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/1000 dilution

Observed band size: 46 kDa



Western blot - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Samples loaded in lanes 2 and 3 are extracts of E.coil expressing either PELI2 or PELI3.

Exposure time: 10 seconds.

All lanes:
Western blot - Anti-Pellino 1 + Pellino 2 antibody [EPR23275-22] (ab254297) at 1/5000 dilution

Lane 1:
His-tagged human PELI1 full length recombinant protein 20 ng

Lane 2:
His-tagged human PELI2 full length recombinant protein 20 ng

Lane 3:
His-tagged human PELI3 full length recombinant protein 20 ng

Secondary

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

Observed band size: 46 kDa

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