abcam

ab16695

Anti-Placental alkaline phosphatase (PLAP) antibody [SP15]

Anti-Placental alkaline phosphatase (PLAP) antibody [SP15] (ab16695) is a rabbit monoclonal antibody detecting Placental alkaline phosphatase (PLAP) in **Flow Cytometry (Intra), IHC-P**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications
- Trusted since 2005

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	SP15
Purification technique	Affinity purification Protein A
Specificity	This antibody reacts with a membrane-bound isoenzyme of placental alkaline phosphatase (PLAP) occurring in the placenta during the 3rd trimester of gestation. It is useful in the identification of testicular germ cell tumors. Unlike germ cell tumors, PLAP-positive somatic cell tumors uniformly express epithelial membrane antigen (EMA).
Epitope	Not determined
Concentration	0.02 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	Boil tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min. Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/200
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information ALPP

Function	Alkaline phosphatase that can hydrolyze various phosphate compounds.

Storage

Shipped at conditions	Conditional Ambient
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 is this antibody validated in?
Anti-Placental alkaline phosphatase (PLAP) antibody [SP15] (ab16695) is a rabbit recombinant monoclonal antibody and is validated for use in Flow Cytometry (Intra), Immunohistochemistry (IHC-P) in Human samples.

Collaboration
Anti-Placental alkaline phosphatase (PLAP) [SP15] (ab16695) is a clone from the portfolio of Spring Bioscience (Roche) SP clones which have been optimised for immunohistochemistry (IHC).

Trusted by the scientific community
Anti-Placental alkaline phosphatase (PLAP) [SP15] (ab16695) was first used in a scientific publication in 2005 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [SP15] also available for your convenience: ab16695, Carrier free - ab218848, ab238800, Alexa Fluor® 488 - ab270195

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	Placental alkaline phosphatase (PLAP) also known by names like alkaline phosphatase/PLAP protein or ALPP functions as an enzyme that removes phosphate groups from molecules. It typically appears in tissues such as the placenta and is known to be active during pregnancy. PLAP has a molecular mass of approximately 66 kDa. Normally found expressed in the placenta this enzyme shares similarities with other alkaline phosphatases but is distinct due to its specific expression and function during gestation.
Biological function summary	PLAP shows importance in bone mineralization and fetal development. It participates in the hydrolysis of phosphate esters influencing nutrient availability and metabolism. PLAP is not a part of major protein complexes; however its enzymatic activity directly affects local phosphate concentrations which are critical for processes like bone formation and tissue regeneration during pregnancy.
Pathways	PLAP expression and activity intersect significantly with phosphate metabolism and fetal development pathways. The alkaline phosphatase family plays central roles in these pathways and PLAP shares functions with other isoenzymes in the family such as the tissue nonspecific alkaline phosphatase. These enzymes regulate phosphate turnover and contribute to essential developmental processes.
Associated diseases and disorders	PLAP connects primarily to certain types of cancers and gestational disorders. Elevated levels of PLAP link to testicular germ cell tumors and ovarian cancer where it serves as a biomarker. In gestational trophoblastic disease PLAP expression provides valuable diagnostic information. Interactions with proteins like hCG (human chorionic gonadotropin) also offer insights into potential disease mechanisms especially in reproductive health challenges.

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.

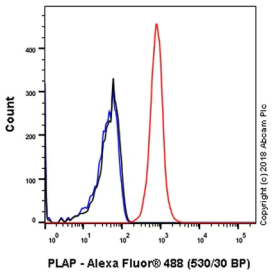
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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

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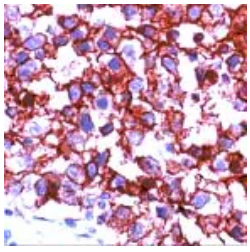
2 product images



Flow Cytometry (Intracellular) - Anti-Placental alkaline phosphatase (PLAP) antibody [SP15] (ab16695)

Placental alkaline phosphatase (PLAP) Flow Cytometry (Intracellular) staining using rabbit Anti-Placental alkaline phosphatase (PLAP) antibody

Intracellular flow cytometry analysis of HeLa (human cervix adenocarcinoma epithelial cell) labeling Placental alkaline phosphatase (PLAP) with purified ab16695 at 1/200 dilution (0.6µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as a secondary antibody. Isotype control -Rabbit monoclonal IgG (ab172730) / Black. Unlableled control -Unlabelled cells / blue.
This image was generated from the hybridoma version.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Placental alkaline phosphatase (PLAP) antibody [SP15] (ab16695)

Placental alkaline phosphatase (PLAP) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Placental alkaline phosphatase (PLAP) antibody

Human seminoma stained with ab16695.
This image was generated from the hybridoma version.

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