

Datasheet: VMA00978

BATCH NUMBER 172981

Description:	HUMAN ANTI PTEN
Specificity:	PTEN
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	AbD38831eg
Isotype:	HuCAL Fab bivalent
Quantity:	100 µl

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/200 - 1/2000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Learn about [how we validate our PrecisionAb range](#). Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

Target Species

Human

Product Form

A bivalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in E. coli. This Fab fragment is bivalent by dimerization of an inactive variant of the bacterial alkaline phosphatase fusion protein. The antibody is tagged with a DYKDDDDK tag and a HIS-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This product is supplied as a liquid.

Preparation

Prepared by affinity chromatography

Source

E.coli

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN₃)

Approx. Protein Concentrations	IgG concentration 0.5 mg/ml
Immunogen	Protein was generated against the peptide HYRYSDTTDSDP (PTENaa375-388)
External Database Links	<p>UniProt: P60484 Related reagents</p> <p>Entrez Gene: 5728 PTEN Related reagents</p>
Synonyms	MMAC1, TEP1
Specificity	<p>Human anti PTEN antibody is a recombinant Fab antibody fragment in the format Fab-Max-FH and recognizes phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN, also known as phosphatase and tensin homolog (PTEN), MMAC1, and TEP1. The PTEN protein is a phosphatase with activity against protein and phospholipid, and acts as a potent tumor suppressor by antagonizing the PI3K/AKT pathway, whereas overexpression of this pathway drives tumorigenesis (Bermúdez Brito et al. 2015). In this way, PTEN mutations can lead to altered protein synthesis, cell cycle processes, cell growth and DNA repair (Hopkins et al. 2014). Somatic loss-of-function PTEN mutations are therefore common in many human cancers, and PTEN mutations have also been identified in autism spectrum disorder (ASD) (Rodríguez-Escudero et al. 2011). Under normal conditions, PTEN levels are tightly regulated by transcriptional, post-transcriptional and post-translational methods, and small changes in PTEN levels can have dramatic effects on cellular function (Haddadi et al. 2018).</p>
Western Blotting	Human anti PTEN detects a band of approximately 54 kDa in MCF-7 cell lysate
Storage	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	As supplied, 12 months from date of despatch
Acknowledgements	<p>PrecisionAb is a trademark of Bio-Rad Laboratories.</p> <p>This product and/or its use is covered by claims of U.S. patents, and/or pending U.S. and non-U.S. patent applications owned by or under license to Bio-Rad Laboratories, Inc. See bio-rad.com/en-us/trademarks for details.</p> <p>His-tag is a registered trademark of EMD Biosciences.</p>
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/VMA00978
Regulatory	For research purposes only

Technical Advice

Technical advice - Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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