

Datasheet: VMA00978

**BATCH NUMBER 157945**

<b>Description:</b>	HUMAN ANTI PTEN
<b>Specificity:</b>	PTEN
<b>Format:</b>	Purified
<b>Product Type:</b>	PrecisionAb Monoclonal
<b>Clone:</b>	AbD38831eg
<b>Isotype:</b>	HuCAL Fab bivalent
<b>Quantity:</b>	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](http://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. Click [here](#) to learn 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

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.01% Thiomersal

<b>Approx. Protein Concentrations</b>	IgG concentration 0.5 mg/ml
<b>Immunogen</b>	Protein was generated against the peptide HYRYSDTTDSDP (PTENaa375-388)
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P60484</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">5728</a>    PTEN    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	MMAC1, TEP1
<b>Specificity</b>	<p><b>Human anti PTEN antibody</b> 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 (<a href="#">Bermúdez Brito et al. 2015</a>). In this way, PTEN mutations can lead to altered protein synthesis, cell cycle processes, cell growth and DNA repair (<a href="#">Hopkins et al. 2014</a>). 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) (<a href="#">Rodríguez-Escudero et al. 2011</a>). 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 (<a href="#">Haddadi et al. 2018</a>).</p>
<b>Western Blotting</b>	Human anti PTEN detects a band of approximately 54 kDa in MCF-7 cell lysate
<b>Storage</b>	<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>
<b>Guarantee</b>	As supplied, 12 months from date of despatch
<b>Acknowledgements</b>	<p>PrecisionAb is a trademark of Bio-Rad Laboratories.</p> <p>Sold under license of U.S. Patents 6753136, 7785859 and 8273688 and corresponding patents. This antibody was developed by Bio-Rad, Zeppelinstr. 4, 82178 Puchheim, Germany.</p> <p>His-tag is a registered trademark of EMD Biosciences.</p>
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10094 available at:  <a href="https://www.bio-rad-antibodies.com/SDS/VMA00978">https://www.bio-rad-antibodies.com/SDS/VMA00978</a>  10094</p>

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**Regulatory** For research purposes only

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

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

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