

## Datasheet: HCA308

<b>Description:</b>	HUMAN ANTI AKT1
<b>Specificity:</b>	AKT1
<b>Other names:</b>	PROTEIN KINASE B
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD30769
<b>Isotype:</b>	HuCAL Fab bivalent
<b>Quantity:</b>	0.1 mg

## 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
ELISA	▪			
Western Blotting	▪			1/200 - 1/2000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	A bivalent human recombinant Fab selected from the HuCAL phage display library, expressed in <i>E. coli</i> . This Fab fragment is dimerized via an inactive variant of the bacterial alkaline phosphatase (BAP) fusion protein. The antibody is tagged with DYKDDDDK and His (HHHHHH) tags.
<b>Preparation</b>	Prepared by affinity chromatography
<b>Source</b>	E.coli
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.01% Thiomersal

<b>Approx. Protein Concentrations</b>	Antibody concentration 1.0 mg/ml
<b>Immunogen</b>	Recombinant Human AKT1-GST fusion protein
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P31749</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">207</a>    AKT1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	PKB, RAC
<b>Specificity</b>	<p><b>Human anti AKT1 antibody, clone AbD30769</b> recognizes AKT1, also known as RAC-alpha serine/threonine-protein kinase, protein kinase B alpha or Proto-oncogene c-Akt.</p> <p>It belongs to the AGC kinase family (<a href="#">Brown and Banerji 2017</a>). AKT activity is regulated downstream of receptor tyrosine kinases (RTKs) (<a href="#">Franke et al. 1995</a>, Brown and Banerji 2017). Its substrates have a consensus phosphorylation motif: R-X-R-X-X-S/T-B (X is any amino acid and B denotes a preference for bulky hydrophobic residues) (Brown and Banerji 2017). A number of AKT substrates have been described including BAD (BCL2 associated agonist of cell death), FOXO (Forkhead Box), MDM2 (MDM2 oncogene), TSC2 (tuberous sclerosis 2), PRAS40 (proline rich Akt substrate), CDKN (cyclin-dependent kinase inhibitor) and GSK3<math>\beta</math> (glycogen synthase kinase beta) (<a href="#">Manning and Cantley 2007</a>).</p> <p>AKT is frequently activated in cancer (<a href="#">Manning and Toker 2017</a>). In breast cancer, AKT isoforms play different roles during breast cancer progression (<a href="#">Riggio et al. 2017</a>).</p>
<b>Storage</b>	<p>Store at -20°C only.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	<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 <a href="http://bio-rad.com/en-us/trademarks">bio-rad.com/en-us/trademarks</a> for details.</p> <p>His-tag is a trademark of EMD Biosciences.</p>
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10162 available at: <a href="https://www.bio-rad-antibodies.com/SDS/HCA308">https://www.bio-rad-antibodies.com/SDS/HCA308</a></p> <p>10162</p>
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	Recommended protocols and further information about HuCAL recombinant antibody

technology can be found in the [HuCAL Antibodies Technical Manual](#).

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## Related Products

### Recommended Secondary Antibodies

Human Anti Bacterial ALKALINE PHOSPHATASE (HCA275...) [HRP](#)

**North & South** Tel: +1 800 265 7376

**Worldwide**

Tel: +44 (0)1865 852 700

**Europe**

Tel: +49 (0) 89 8090 95 21

**America** Fax: +1 919 878 3751

Fax: +44 (0)1865 852 739

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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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