

Datasheet: HCA308

BATCH NUMBER 1807

Description:	HUMAN ANTI AKT1
Specificity:	AKT1
Other names:	PROTEIN KINASE B
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD30769
Isotype:	HuCAL Fab bivalent
Quantity:	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.

	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.

Target Species	Human
-----------------------	-------

Product Form	A bivalent human recombinant Fab selected from the HuCAL® phage display library, expressed in E. coli. 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.
---------------------	---

Preparation	Prepared by affinity chromatography
--------------------	-------------------------------------

Buffer Solution	Phosphate buffered saline
------------------------	---------------------------

Preservative Stabilisers	0.01% Thiomersal
---------------------------------	------------------

Approx. Protein	Antibody concentration 1.0 mg/ml
------------------------	----------------------------------

Concentrations

Immunogen Recombinant Human AKT1-GST fusion protein

External Database Links

UniProt:

[P31749](#) [Related reagents](#)

Entrez Gene:

[207](#) AKT1 [Related reagents](#)

Synonyms PKB, RAC

Specificity

Human anti AKT1 antibody, clone AbD30769 recognizes AKT1, also known as RAC-alpha serine/threonine-protein kinase, protein kinase B alpha or Proto-oncogene c-Akt.

It belongs to the AGC kinase family ([Brown and Banerji 2017](#)). AKT activity is regulated downstream of receptor tyrosine kinases (RTKs) ([Franke et al. 1995](#), 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 β (glycogen synthase kinase beta) ([Manning and Cantley 2007](#)).

AKT is frequently activated in cancer ([Manning and Toker 2017](#)). In breast cancer, AKT isoforms play different roles during breast cancer progression ([Riggio et al. 2017](#)).

Storage

Store at -20°C only.

Storage in frost-free freezers is not recommended.

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.

Guarantee

12 months from date of despatch

Acknowledgements

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.

His-tag is a registered trademark of EMD Biosciences.

Health And Safety Information

Material Safety Datasheet documentation #10162 available at:

<https://www.bio-rad-antibodies.com/SDS/HCA308>

10162

Regulatory

For research purposes only

Technical Advice

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

Related Products

Recommended Secondary Antibodies

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: 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

'M371751:200612'

Printed on 12 Aug 2023

© 2023 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)