

## Datasheet: AHP1050

<b>Description:</b>	RABBIT ANTI 14-3-3 SIGMA
<b>Specificity:</b>	14-3-3 SIGMA
<b>Format:</b>	Serum
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	0.1 ml

## 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
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/3000

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

Sheep

### Species Cross Reactivity

Reacts with: Human, Bovine, Chicken, Rat, Mouse, Rabbit

Based on sequence similarity, is expected to react with: Mammals

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Serum - liquid

### Antiserum Preparation

Antisera to sheep 14-3-3 sigma were raised by repeated immunisations of rabbit with highly purified antigen.

### Preservative

0.09% Sodium Azide (NaN<sub>3</sub>)

## Stabilisers

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**Immunogen** Synthetic peptide corresponding to acetylated N-terminal sequence of sheep 14-3-3 sigma.

Peptide sequence: Ac.MERASLIQKAC

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## External Database

### Links

#### UniProt:

[O77642](#)

[Related reagents](#)

#### Entrez Gene:

[443032](#)

SFN

[Related reagents](#)

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### RRID

AB\_808328

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### Specificity

**Rabbit anti 14-3-3 $\sigma$  antibody** recognizes 14-3-3 sigma in all mammals. It is a member of the 14-3-3 family which consists of 30 kDa proteins involved in multiple protein kinase signalling pathways, regulation of cell cycle progression, cytoskeletal structure, transcription, intracellular trafficking and targeting. Protein interactions with 14-3-3 show distinct preference for its different isoforms and are regulated by phosphorylation of both 14-3-3 and the bound protein.

14-3-3 $\sigma$  is expressed mostly in epithelial cells and has been associated with cancers including breast, nasopharyngeal, endometrial adenocarcinoma, prostate, epithelial ovarian, colorectal, adenoid cystic, and papillary.

14-3-3 $\sigma$  binds c-fos activating the MAPK pathway. Sequestration of Bax by 14-3-3 $\sigma$  inhibits apoptosis whereas sequestration of 14-3-3 sigma by CARP-1 induces it. Mitosis is regulated by 14-3-3 $\sigma$  through binding keratin filaments and sequestering cyclin B1 and cdc2. p73-dependent induction of 14-3-3 sigma regulates chemo sensitivity in breast cancers with p53 mutations. In reaction to DNA damage and along with RACK1, 14-3-3 $\sigma$  targets, DeltaNp63alpha for proteasome degradation. 14-3-3 also negatively regulates both the glucocorticoid receptor and the activity of PKB/Akt which stabilizes p27 Kip1.

Rabbit anti 14-3-3 $\sigma$  antibody may not react with recombinant proteins that are not N-acetylated.

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### Western Blotting

AHP1050 detects a band of approximately 30kDa in HEK293 cell lysates.

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### References

1. Taurino, F. *et al.* (2014) Short-term type-1 diabetes differentially modulates 14-3-3 proteins in rat brain and liver. [Eur J Clin Invest. 44 \(4\): 350-8.](#)
  2. De, S. *et al.* (2012) Expression of 14-3-3 protein isoforms in mouse oocytes, eggs and ovarian follicular development [BMC Res Notes. 5: 57.](#)
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### Further Reading

1. Aitken, A. (2006) 14-3-3 proteins: a historic overview. [Semin Cancer Biol. 16 \(3\): 162-72.](#)
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<b>Storage</b>	Store at +4°C or at -20°C if preferred. 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.
<b>Guarantee</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10081 available at: 10081: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10081.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10081.pdf</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
- Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
- Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
- Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
- Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®680](#), [DyLight®800](#)

### Recommended Useful Reagents

[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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