

## Datasheet: MCA1168

|                      |  |
|----------------------|--|
| <b>Description:</b>  | MOUSE ANTI PI-3 KINASE p85 SUBUNIT ALPHA |
| <b>Specificity:</b>  | PI-3 KINASE p85 SUBUNIT ALPHA            |
| <b>Format:</b>       | S/N                                      |
| <b>Product Type:</b> | Monoclonal Antibody                      |
| <b>Clone:</b>        | U13                                      |
| <b>Isotype:</b>      | IgG1                                     |
| <b>Quantity:</b>     | 2 ml                                     |

## Product Details

**RRID** AB\_322369

**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        | ▪   |    |                | Neat               |
| Western Blotting           | ▪   |    |                | 1/200              |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

**Target Species** Bovine

**Species Cross Reactivity** Reacts with: Human, Monkey, Rat, Mouse  
**N.B.** Antibody reactivity and working conditions may vary between species.

**Product Form** Tissue Culture Supernatant - liquid

**Preparation** Tissue Culture Supernatant containing 0.2M Tris/HCl pH7.4 and 5-10% foetal calf serum

**Preservative Stabilisers** 0.09% Sodium Azide

**Immunogen** Balculovirus expressed (Recombinant) Bovine p85 alpha subunit of PI3 kinase.

**External Database Links**  
**UniProt:**  
[P27986](#)    [Related reagents](#)

[P23727](#) [Related reagents](#)

[P26450](#) [Related reagents](#)

[Q63787](#) [Related reagents](#)

**Entrez Gene:**

[5295](#) PIK3R1 [Related reagents](#)

[282307](#) PIK3R1 [Related reagents](#)

[18708](#) Pik3r1 [Related reagents](#)

[25513](#) Pik3r1 [Related reagents](#)

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**Synonyms**

GRB1

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**Fusion Partners**

Spleen cells from immunized mice were fused with cells of the NS1 mouse myeloma cell line.

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**Specificity**

**Mouse anti PI-3 Kinase p85 Subunit alpha antibody, clone U13** recognizes the SH3 domain of the p85 alpha subunit of bovine PI3 kinase, also known as Phosphatidylinositol 3-kinase regulatory subunit alpha, Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha or PtdIns-3-kinase regulatory subunit p85-alpha. p85  $\alpha$  PI3 kinase is a 724 amino acid ~85 kDa protein bearing a single [Rho-GAP](#) domain, two [SH2](#) domains and a single N-terminal [SH3](#) domain. Multiple isoforms of the protein can be generated by alternative splicing, mouse anti PI-3 Kinase p85 subunit alpha antibody, clone U13 recognizes only those isoforms containing the SH3 domain (isoforms 1 and 4) but not those lacking the domain (isoforms 2,3 and 5).

Deficiencies in the expression of the PIK3R1 gene can lead to immunodeficiency Agammaglobulinemia 7, autosomal recessive, due to the inhibition of B cell development ([Conley et al. 2012](#)) and the developmental condition SHORT syndrome ([Chudasama et al. 2013](#)).

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**References**

1. Woodfield, R.J. *et al.* (2001) The p85 subunit of phosphoinositide 3-kinase is associated with beta-catenin in the cadherin-based adhesion complex. [Biochem J. 360 \(Pt 2\): 335-44.](#)
2. Reif, K. *et al.* (1993) Divergent regulation of phosphatidylinositol 3-kinase P85 alpha and P85 beta isoforms upon T cell activation. [J Biol Chem. 268 \(15\): 10780-8.](#)
3. Dawson, C.W. *et al.* (2003) Epstein-Barr virus latent membrane protein 1 (LMP1) activates the phosphatidylinositol 3-kinase/Akt pathway to promote cell survival and induce actin filament remodeling. [J Biol Chem. 278: 3694-704.](#)
4. Cross, M.J. *et al.* (1995) Wortmannin and its structural analogue demethoxyviridin inhibit stimulated phospholipase A2 activity in Swiss 3T3 cells. Wortmannin is not a specific inhibitor of phosphatidylinositol 3-kinase. [J Biol Chem. 270: 25352-5.](#)
5. Gillham, H. *et al.* (1999) Intracellular movement of green fluorescent protein-tagged phosphatidylinositol 3-kinase in response to growth factor receptor signaling. [J Cell Biol. 146: 869-80.](#)
6. Shepherd, P.R. *et al.* (1997) Differential regulation of phosphoinositide 3-kinase adapter subunit variants by insulin in human skeletal muscle. [J Biol Chem. 272: 19000-7.](#)
7. Raymond, A.A. *et al.* (2017) Reptin regulates insulin-stimulated Akt phosphorylation in hepatocellular carcinoma via the regulation of SHP-1/PTPN6. [Cell Biochem Funct. 35 \(6\): 289-95.](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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 #10055 available at: 10055: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10055.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10055.pdf</a> |
| <b>Regulatory</b>                    | For research purposes only  |

## Related Products

### Recommended Secondary Antibodies

|   |   |
|---|---|
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>  |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>   |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight®800</a>   |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a> |

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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