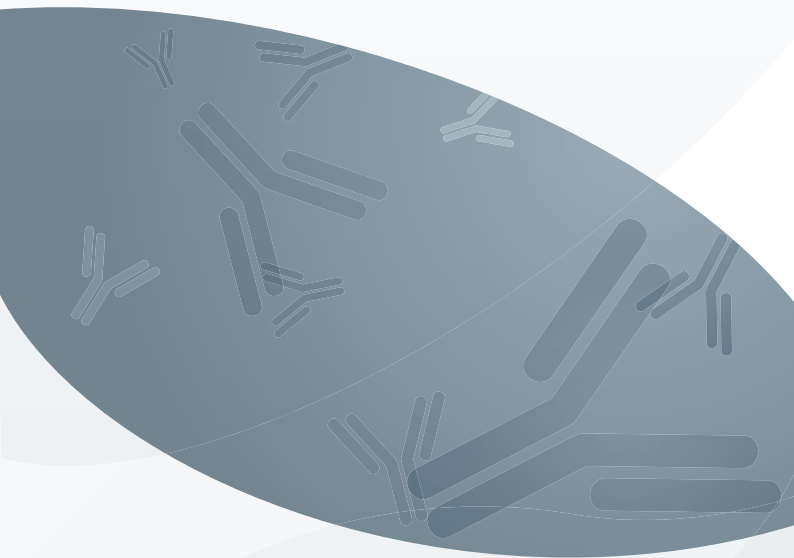




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# Antibody

Product Information Sheet

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## Product

Cambridge Research Biochemicals (CRB) has supplied this antibody to you as a custom-produced reagent. This antibody has been raised in animals (e.g. rabbits, chickens, sheep, goats, other species available on request) immunised with antigen, and is provided as immunoglobulin G (IgG) from sera or immunoglobulin Y (IgY) from chicken eggs. The antiserum has been purified by affinity chromatography and therefore consists of antibodies specific to the antigen. The antibodies are purified by eluting in a low pH buffer (glycine eluate pH 2.5) and then a high pH buffer (triethylammonium chloride (TEA) pH 11.5). The eluates are neutralised immediately and dialysed against phosphate buffered saline pH 7.4; therefore all the antibodies are supplied in PBS (with 0.01% sodium azide and 1% trehalose).

## Safety

This antibody reagent is supplied for use as a research tool only and must not be used in humans. Standard laboratory practices should be followed when handling this material. The toxicological properties of this material have not been investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation and ingestion. The purified antibodies contain 0.01% sodium azide as a preservative and care should be taken when using this product.

## Specificity

CRB monitors antibody specificity for the antigen using ELISA and the protein concentration is determined by absorbance at 280nm. Additional analysis can be carried out on request, such as SDS-PAGE or dye binding protein assays.

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## **Titre**

As supplied, all CRB antibody reagents have been tested for use by ELISA. The titre corresponds to the antibody dilution giving a net signal 50% of maximum obtained in a primary antibody dilution series. The dilution required is to be determined empirically by investigators under their own assay conditions. A good starting point is to use a range of dilutions, into a suitable buffer, that fall above and below the titre value.

The two different eluates supplied contain antibodies that have been eluted at high or low pH, and so are labelled as “Glycine eluate” and “TEA eluate”. These may have different properties and therefore both eluates should be tested if possible.

## **Phospho Specific Antibodies**

When interpreting the datasheet for a phospho specific antibody, the difference between the ELISA titre against the phosphorylated peptide and the non-phosphorylated peptide is the most important factor. To purify phospho specific antibodies the sera is depleted by passing through a column derivatised with the non-phosphorylated peptide multiple times. Then we carry out a positive selection by passing the depleted sera through a column derivatised with the phosphorylated peptide.

We perform ELISA analysis on the eluates from both columns to fully follow the purification procedure. CRB will provide the eluates from both columns but it is the eluates from the phosphorylated column that will contain the purified phospho specific antibodies.



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## **Storage And Stability**

CRB antibody reagents are stable stored frozen at  $-20^{\circ}\text{C}$ . We do recommend protecting your antibody by avoiding repeated freeze-thawing. In part, this can be achieved by dividing your sample into multiple aliquots on arrival for frozen storage. Another aid is to store a working antibody aliquot in a refrigerator (rather than freezing it after use). Although immunoglobulins are relatively stable molecules we do add (unless otherwise instructed) 0.01% sodium azide as an antimicrobial agent and 1% trehalose as a stabiliser.

The trehalose is added to help maintain the three dimensional conformation of the antibody molecule and it will also protect the antibody if freeze-drying is required. Horseradish peroxidase will be inactivated in the presence of sodium azide but both sodium azide and trehalose can be removed by dialysis or buffer exchange chromatography of the antibody before coupling it to the enzyme.

## **Application**

Antibody Datasheets show that antibodies have been assessed for suitability to detect the antigen in ELISA. However, the antibody has not been analysed for use in other techniques and it is the responsibility of the user to determine the suitability of the product for their own use.

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## Additional Services

- Y **PROTEIN A/G PURIFICATION** CRB can carry out Protein A or Protein G purifications as an alternative to affinity purification. The pre-immune sera can also be Protein A or Protein G purified for use as a control.
- Y **ANTIBODY LABELLING** If your chosen application uses direct rather than indirect detection of antibody bound to antigen, then CRB can offer an antibody labelling service. CRB are able to label antibodies with fluorescent dyes, enzymes, biotin or ruthenium upon request and other labels may be available. We welcome you contacting us to discuss your specific requirements.
- Y **FRAGMENTATION** CRB can produce purified Fab and F(ab')<sub>2</sub> fragments if required.
- Y **EPITOPE PREDICTION** CRB is also able to offer a protein prediction service in which the protein sequence is analysed to choose a range of peptides that would be good antigens for antibody production. If any of these or other extra services not mentioned here are of interest to you, then we welcome you contacting us to discuss your specific requirements.
- Y **SUPPORT** CRB has successfully made peptides and antibodies for more than three decades. As part of supplying your antibody, and based on a wealth of experience, CRB is pleased to offer a high level of pre and post-sales support for enquiries concerning all stages of antibody production and use. *Therefore, if you require assistance, please do not hesitate to get in touch, we would like to assist you. E-mail us (including your telephone number and extension) and we will have one of our experienced antibody support team contact you as soon as possible.*

# Finally

Thank you for purchasing your antibody reagent from **Cambridge Research Biochemicals**. We want this antibody reagent to make a valuable contribution to your work. We also want you to be pleased with it so that you choose us again the next time you require an antibody reagent.

Some services mentioned throughout may be chargeable. The information and recommendations given here are, to the best of our knowledge, information and belief, accurate at the time of publication. In all cases, it is the responsibility of the user to determine the applicability of such information or the suitability of any products for their own use.

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