Datasheet: HCA247

Description: RECOMBINANT HUMAN IgG4 KAPPA (MUTANT)
Name: HUMAN IgG4 KAPPA
Format: Purified
Product Type: Recombinant Protein
Clone: AbD18705_hIgG4_Pro
Isotype: IgG4 Kappa
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.

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<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<td>ELISA</td>
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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.

Product Form

Human IgG4 antibody selected from the HuCAL phage display library and expressed in a human cell line - liquid.

Preparation

Purified IgG prepared by affinity chromatography on Protein A.

Source

HKB-11

Buffer Solution

Phosphate buffered saline.

Preservative Stabilisers

0.09% Sodium Azide (NaN₃)

Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml.

Immunogen

Green fluorescent protein.

External Database Links

UniProt:
Recombinant Human IgG4 kappa (mutant), clone AbD18705_hlgG4_Pro is a recombinant human IgG4 antibody with a kappa light chain and a mutation S228P in the core hinge region.

Clone AbD18705_hlgG4_Pro is specific for green fluorescent protein (GFP) and has no known reactivity with mammalian proteins or other antigens. This product is recommended for use as a standard in assays designed to measure IgG4 levels, or as a control antibody when using other human antibodies of the same isotype and subclass.

In addition to the tetrameric IgG structure, composed of two copies each of the heavy and light chains, wild type human IgG4 forms so-called half-molecules. This species contains only one heavy and one light chain. Half-molecules can assemble with an unrelated half-molecule to form bispecific tetrameric antibody species (Aalberse et al. 2002). Half-molecules of human IgG4 preparations can be detected as an additional species under denaturing, non-reducing conditions using SDS-PAGE, size exclusion chromatography or capillary electrophoresis. The serine to proline mutation at amino acid 228 in the core hinge region of IgG4 prevents the formation of half-molecules (Bloom et al. 1997). Recombinant Human IgG4 kappa (mutant) does not display this additional species; half-molecules cannot be detected in SDS-PAGE or by size exclusion chromatography.

In addition to the mutant recombinant, Bio-Rad also offers recombinant Human IgG4 kappa in its wild type form (HCA195). Recombinant Human IgG4 lambda is also available in both wild type (HCA050) and mutant form (HCA246).

Further Reading


Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee

12 months from date of despatch.

Acknowledgements

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 bio-rad.com/en-us/trademarks for details.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/HCA247

Licensed Use

For in vitro research purposes only, unless otherwise specified in writing by Bio-Rad.

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 Useful Reagents

RECOMBINANT HUMAN IgG4 LAMBDA (HCA050)
RECOMBINANT HUMAN IgG4 LAMBDA (MUTANT) (HCA246)
RECOMBINANT HUMAN IgG4 KAPPA (HCA195)

North & South America
Tel: +1 800 265 7376
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 'M420960:230706'

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