

Datasheet: HCA050A

Description:	RECOMBINANT HUMAN IgG4 LAMBDA
Name:	HUMAN IgG4 LAMBDA
Format:	Purified
Product Type:	Recombinant Protein
Clone:	AbD264_hIgG4
Isotype:	IgG4 Lambda
Quantity:	50 µg

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
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting			▪	

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 GOLD phage display library and expressed in a human cell line, HKB-11 - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.01% Thiomersal
Approx. Protein Concentrations	Antibody concentration 0.5 mg/ml
Immunogen	Green fluorescent protein.
External Database Links	UniProt: C6KXN3 Related reagents P01861 Related reagents

Entrez Gene:

[3503](#) IGHG4 [Related reagents](#)

Product Information **Recombinant Human IgG4 lambda, clone AbD264_hIgG4** is a recombinant human IgG4 antibody with a lambda light chain.

Clone AbD264_hIgG4 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, 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.

Mutation in the core hinge region of IgG4 prevents the formation of half-molecules ([Bloom et al. 1997](#)). In addition to the wild type recombinant, Bio-Rad also offers recombinant Human IgG4 lambda in its mutated form ([HCA246](#)). Recombinant Human IgG4 kappa is also available in both wild type ([HCA195](#)) and mutant form ([HCA247](#)).

Further Reading

1. Aalberse, R.C. & Schuurman, J. (2002) IgG4 breaking the rules. [Immunology. 105 \(1\): 9-19.](#)
2. Bloom, J.W. et al. (1997) Intrachain disulfide bond in the core hinge region of human IgG4. [Protein Sci. 6:407-415](#)

Storage

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.

Shelf Life 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.

Health And Safety Information Material Safety Datasheet Documentation #10094 available at: <https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf>

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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

Mouse Anti Human IgG (Fc) (CH2 DOMAIN) (MCA647...) [HRP](#)

Goat Anti Human IgG F(ab')₂ (0500-0099...) [HRP](#)

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