

## Datasheet: HCA195

**BATCH NUMBER 1801**

<b>Description:</b>	RECOMBINANT HUMAN IgG4 KAPPA
<b>Name:</b>	HUMAN IgG4 KAPPA
<b>Format:</b>	Purified
<b>Product Type:</b>	Recombinant Protein
<b>Clone:</b>	AbD18705_hlgG4
<b>Isotype:</b>	IgG4 Kappa
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			

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.

<b>Product Form</b>	Human IgG4 antibody selected from the HuCAL® phage display library and expressed in a human cell line. This antibody is supplied as a liquid.
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.01% Thiomersal
<b>Approx. Protein Concentrations</b>	Antibody concentration 0.5 mg/ml
<b>Immunogen</b>	Green fluorescent protein.

#### External Database Links

**UniProt:**  
[P01834](https://www.uniprot.org/entry/P01834)    [Related reagents](#)

**Entrez Gene:**

[3514](#) IGKC    [Related reagents](#)

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

---

**Specificity**                    **Recombinant Human IgG4 kappa, AbD18705\_hlgG4** is a recombinant human IgG4 antibody with a kappa light chain.

AbD18705\_hlgG4 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 kappa in its mutated form ([HCA247](#)). Recombinant Human IgG4 lambda is also available in both wild type ([HCA050](#)) and mutant form ([HCA246](#)).

---

**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.

---

**Guarantee**                    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 #10040 available at:  
<https://www.bio-rad-antibodies.com/SDS/HCA19510040>

---

**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

## Related Products

### Recommended Useful Reagents

[RECOMBINANT HUMAN IgG4 LAMBDA \(HCA050\)](#)

[RECOMBINANT HUMAN IgG4 LAMBDA \(MUTANT\) \(HCA246\)](#)

[RECOMBINANT HUMAN IgG4 KAPPA \(MUTANT\) \(HCA247\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto: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](https://bio-rad-antibodies.com/datasheets)

'M371608:200612'

**Printed on 13 May 2025**