

Datasheet: HCA413

Description:	RECOMBINANT HUMAN IgG1 YTE KAPPA ALLOTYP E G1m3
Name:	HUMAN IgG1 KAPPA ALLOTYP E G1m3
Format:	Purified
Product Type:	Recombinant Protein
Clone:	AbD18705iu
Isotype:	IgG1 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.

	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.

Product Form	Human IgG1 antibody selected from the HuCAL® phage display library and expressed in a human cell line. This antibody is supplied as a 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 (NaN ₃)
Approx. Protein Concentrations	Antibody concentration 0.5 mg/ml
Immunogen	Green fluorescent protein
External Database Links	UniProt:

[P01834](#) [Related reagents](#)

[P01857](#) [Related reagents](#)

Entrez Gene:

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

[3500](#) IGHG1 [Related reagents](#)

Specificity

Recombinant Human IgG1 YTE Kappa allotype G1m3, clone AbD18705iu is a recombinant human antibody with a kappa light chain, and a heavy chain belonging to the G1m3 allotype, also designated G1m(f). It contains a M252Y, S254T, T256E (YTE) triple mutation at the interface between the CH2 and CH3 domains of its Fc region. The introduction of the YTE mutation in the Fc region of an antibody has been shown to increase its half life by a 4-5 fold due to an increase in the antibody affinity to the neonatal Fc receptor (FcRn). It is therefore a mutation of choice for the generation of biotherapeutic antibodies.

This product is a recombinant antibody with specificity for green fluorescent protein (GFP). It has no known reactivity with mammalian proteins or other antigens. It is therefore recommended as a relevant control for scientists working on the R&D of therapeutic antibodies with this engineered Fc region. It is recommended that this reagent is used at the same concentration as the test reagent.

The main allelic forms of IgG1 are G1m(f), G1m(f,a), and G1m(z,a). The G1m(f) (or G1m3) allele is only found in Caucasoid populations, whereas the G1m(f,a) allele is common in Mongoloids, but other variants, G1m(z,a,x) and G1m(z,a,v), have also been described; for further details on IgG1 allotypes see [IgG subclasses and allotypes: from structure to effector functions](#), and [IMGT Repertoire \(IG and TR\) Allotypes: Human \(*Homo sapiens*\) IGHC](#).

The following publication reviews the serologically defined human IgG allotypes and considers the potential for allotype differences to contribute to or potentiate immunogenicity; [Human immunoglobulin allotypes, possible implications for immunogenicity](#)

Our range of IgG1 controls also includes [Recombinant Human IgG1 kappa allotype G1m17,1](#), and the corresponding allotypes for IgG1 lambda.

[View a summary of all recombinant fully human immunoglobulin isotype controls](#)

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/HCA413>
10040

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 IgG1 N297Q KAPPA ALLOTYPE G1m3 \(HCA394\)](#)

[RECOMBINANT HUMAN IgG1 LALA KAPPA ALLOTYPE G1m3 \(HCA395\)](#)

[RECOMBINANT HUMAN IgG1 KAPPA ALLOTYPE G1m3 \(HCA192\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M430058:240502'

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