

Datasheet: TZA064

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| Description: | HUMAN ANTI CANAKINUMAB |
| Specificity: | CANAKINUMAB |
| Other names: | Ilaris |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | AbD54331 |
| Isotype: | Fab antibody |
| 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

A monovalent human recombinant Fab (lambda light chain) selected from the HuCAL® phage display library, expressed in a proprietary *E. coli* strain. The antibody is tagged with a DYKDDDDK tag, a SpyTag version 2 (VPTIVMVDAYKRYK) and a His6-tag (HHHHHH) at the C-terminus of the antibody heavy chain. This antibody is supplied as a liquid.

Preparation

Metal chelate affinity chromatography

Source

E. coli

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.0095% MIT

Approx. Protein Concentrations

Antibody concentration 0.5 mg/ml

Immunogen

Canakinumab

Specificity

Human Anti-Canakinumab Antibody, clone AbD54331 is a paratope specific, inhibitory, anti-idiotypic antibody (Type 1) that specifically recognizes the free human monoclonal antibody drug canakinumab, and its biosimilar products. It does not recognize the drug target, the human interleukin-1 beta (IL-1 β), nor canakinumab in complex with IL-1 β . This antibody can be used to measure free canakinumab levels in serum from patients.

Clone AbD54331 is available as a monovalent Fab antibody incorporating a SpyTag at the C-terminus end of the antibody heavy chain for conversion by the end user into alternative formats using any of the [SpyCatchers](#) available in our catalog under product code [TZA064](#). It is also available as a bivalent Fab antibody already conjugated to HRP via coupling to the HRP conjugated BiSpyCatcher2 ([TZC002P](#)) for use in direct ELISA under product code [TZA064P](#).

A pair of anti-canakinumab antibodies can be used to develop a pharmacokinetic (PK) bridging assay to measure free drug; clone AbD54331 is recommended as a detection antibody, paired with Human Anti-Canakinumab Antibody, clone AbD54116ad ([TZA063](#)) as the capture reagent.

Canakinumab (trade name Ilaris) is a fully humanized monoclonal IgG1/kappa antibody with allotype G1m3. It binds to interleukin-1 beta (IL-1 β) to neutralize up-regulated 1 β signaling, resulting in suppression of inflammation in patients with disorders of autoimmune origin. Canakinumab is indicated for treatment of Cryopyrin-Associated Periodic Syndromes (CAPS), three rare and serious auto-inflammatory diseases, Still's disease, and gouty arthritis.

Affinity

The monovalent intrinsic affinity of AbD54331ad was measured as $K_D = 1.5$ nM by real time, label free molecular interaction analysis on immobilized canakinumab.

ELISA

Clone AbD54331ad can be used in indirect ELISA to detect canakinumab. It can also be used as a detection antibody to develop a pharmacokinetic (PK) bridging ELISA for canakinumab, together with [TZA063](#) as the capture reagent. Note that both [TZA063](#) (capture) and [TZA063](#) (detection) contain the same peptide tags. Therefore, using anti-tag antibodies for detecting [TZA063](#) is not possible.

Protocol: [PK bridging ELISA](#)

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.

His-tag is a registered trademark of EMD Biosciences.

Ilaris is a trademark of Novartis AG.

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| Health And Safety Information | Material Safety Datasheet documentation #20479 available at: https://www.bio-rad-antibodies.com/SDS/TZA064 20479 |
| Licensed Use | For <i>in vitro</i> research purposes and for commercial applications for the provision of <i>in vitro</i> testing services to support preclinical and clinical drug development. Any re-sale in any form or any other commercial application needs a written agreement with Bio-Rad. |
| Regulatory | For research purposes only |
| Technical Advice | Recommended protocols for coupling a Fab antibody with a SpyTag to a SpyCatcher can be found at SpyTag and SpyCatcher Products , and further information about HuCAL recombinant antibody technology can be found in the HuCAL Antibodies Technical Manual |

Related Products

Recommended Useful Reagents

[HUMAN ANTI CANAKINUMAB \(TZA063\)](#)
[HUMAN ANTI CANAKINUMAB \(HCA417\)](#)
[HUMAN ANTI CANAKINUMAB \(HCA418\)](#)
[HUMAN ANTI CANAKINUMAB \(HCA419\)](#)
[HISPEC ASSAY DILUENT \(BUF049A\)](#)

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|----------------------------------|---|------------------|---|---------------|---|
| 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 |
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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
'M434293:250207'

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