

## Datasheet: TZA0112

<b>Description:</b>	HUMAN ANTI CANAKINUMAB (DRUG/TARGET COMPLEX)
<b>Specificity:</b>	CANAKINUMAB DRUG/TARGET COMPLEX
<b>Other names:</b>	ILARIS
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD54142
<b>Isotype:</b>	Fab antibody
<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.

### 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/IL-1 beta complex

**Specificity****Human Anti-Canakinumab (Drug/Target Complex) Antibody, clone AbD54142**

specifically recognizes the antibody drug canakinumab when in complex with its target, the human interleukin-1 beta (IL-1 $\beta$ ). It does not recognize free canakinumab nor unbound IL-1 $\beta$ .

The monovalent Fab format of this antibody, clone AbD54142ad (**TZA0112**) is tagged with a SpyTag2 at the C-terminus of the Fab heavy chain, enabling the user to couple it to a [SpyCatcher reagent](#) for conversion to alternative formats in less than one hour.

This antibody is also available as a bivalent Fab antibody pre-coupled to the HRP-conjugated BiSpyCatcher2 ([TZC002P](#)) under product code **TZA0112P** for direct detection of the Canakinumab/ IL-1 $\beta$  complex in bioanalysis assays.

Clone AbD54142 can be used in pharmacokinetic (PK) antigen capture format assays to measure canakinumab that has been captured via immobilized IL-1 $\beta$ . It is ideal for bioanalytical assays to measure the level of drug or biosimilar in complex with the IL-1 $\beta$  target.

Canakinumab (trade name Ilaris) is a fully humanized monoclonal IgG1/kappa antibody with allotype G1m3. It binds to interleukin-1 beta (IL-1 $\beta$ ) to neutralize up-regulated 1 $\beta$  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.

[View a summary of all anti-canakinumab antibodies](#)

**Affinity**

The monovalent intrinsic affinity of AbD54142ad was measured as  $K_D = 3.3$  nM by real time, label free molecular interaction analysis on immobilized human IL-1 beta/canakinumab complex.

**ELISA**

Clone AbD54142ad may be used in an indirect ELISA to detect the human IL-1 beta/canakinumab complex or to detect canakinumab bound to immobilized IL-1 beta.

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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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20479 available at: <a href="https://www.bio-rad-antibodies.com/SDS/TZA0112">https://www.bio-rad-antibodies.com/SDS/TZA0112</a>
<b>Licensed Use</b>	For <i>in vitro</i> research purposes only, unless otherwise specified in writing by Bio-Rad.
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	Recommended protocols for coupling a Fab antibody with a SpyTag to a SpyCatcher can be found at <a href="#">SpyTag and SpyCatcher Products</a> , and further information about HuCAL recombinant antibody technology can be found in the <a href="#">HuCAL Antibodies Technical Manual</a>

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## Related Products

### Recommended Useful Reagents

[HISPEC ASSAY DILUENT \(BUF049A\)](#)  
[HUMAN ANTI CANAKINUMAB \(HCA417\)](#)  
[HUMAN ANTI CANAKINUMAB \(HCA418\)](#)  
[HUMAN ANTI CANAKINUMAB \(HCA419\)](#)  
[HUMAN ANTI CANAKINUMAB \(TZA063\)](#)  
[HUMAN ANTI CANAKINUMAB \(TZA064\)](#)  
[HUMAN ANTI CANAKINUMAB:HRP \(TZA064P\)](#)  
[HUMAN ANTI CANAKINUMAB \(DRUG/TARGET COMPLEX\):HRP \(TZA0112P\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
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