

# Datasheet: HCA257P BATCH NUMBER 159732

Description:	HUMAN ANTI TOCILIZUMAB:HRP		
Specificity:	TOCILIZUMAB		
Other names:	ACTEMRA®, ROACTEMRA®		
Format:	HRP		
Product Type:	Monoclonal Antibody		
Clone:	AbD22155_hlgG1		
Isotype:	lgG1		
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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 (lambda light chain) selected from the HuCAL® phage display library and expressed in a human cell line. Conjugated to horseradish peroxidase (HRP) - liquid.

Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.01% Thiomersal
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Tocilizumab and tocilizumab-sIL-6R complex

#### **Specificity**

**Human Anti-Tocilizumab Antibody, clone AbD22155\_hlgG1** is a non-paratope specific, anti-idiotypic antibody that binds to free tocilizumab and also to tocilizumab bound to its target, human interleukin-6 receptor (IL-6R). The non-inhibitory antibody can be used to measure total levels of tocilizumab and biosimilar products in bioanalytical assays.

Clone AbD22155\_hlgG1 can be used to develop a pharmacokinetic (PK) bridging assay to measure total drug levels (free drug, partially bound and fully bound). This non-inhibitory antibody is recommended as the detection antibody, paired with the inhibitory capture antibody clone AbD21362 (HCA252). This combination enables measurement of free and partially bound tocilizumab, which is equivalent to total drug when trough serum levels are above 10 µg/ml.

Tocilizumab (RoActemra/Actemra) is a humanized IgG1/kappa monoclonal antibody approved for the treatment of moderate to severe rheumatoid arthritis and for the treatment of systemic juvenile idiopathic arthritis. The therapeutic antibody is directed against IL-6R and acts by blocking the binding of IL-6R (both the soluble form, sIL-6R, and the membrane bound form, mIL-6R) to IL-6, thus impeding the pro-inflammatory properties of this cytokine.

#### View a summary of all anti-tocilizumab antibodies

### **Affinity**

The monovalent intrinsic affinity of this antibody was measured as  $K_D$  = 31 nM by real time, label free molecular interaction analysis on immobilized tocilizumab.

#### **ELISA**

This product may be used in a direct ELISA or as a detection reagent in a bridging ELISA together with <u>HCA252</u> as the capture reagent.

Protocol: PK bridging ELISA to measure total drug

#### References

1. Kashiwagi, N. *et al.* (2017) Method for measuring anti-drug antibody <u>US Patent Application US20170315118A1</u>

## Storage

This product is shipped frozen.

When ready to use, thaw and aliquot the sample as needed. Store aliquots at -70°C, if available, otherwise store at -20°C. It is not recommended to keep aliquots at 4°C for more than one week.

#### Guarantee

12 months from date of despatch

#### Acknowledgements

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# Health And Safety Information

Material Safety Datasheet documentation #10094 available at: <a href="https://www.bio-rad-antibodies.com/SDS/HCA257P">https://www.bio-rad-antibodies.com/SDS/HCA257P</a> 10094

For in vitro research purposes and for commercial applications for the provision of in vitro 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

Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the HuCAL Antibodies Technical Manual

# Related Products

# **Recommended Useful Reagents**

HUMAN ANTI TOCILIZUMAB (HCA252)

HISPEC ASSAY DILUENT (BUF049A) HUMAN ANTI TOCILIZUMAB (HCA253)

LUMAN ANTI TOCULTUMAD (LICASEA)

HUMAN ANTI TOCILIZUMAB (HCA254) HUMAN ANTI TOCILIZUMAB (HCA255)

**HUMAN ANTI TOCILIZUMAB (HCA256)** 

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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 'M395094:220310'

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