Rev03
Update: Aug,08,2025

DATASHEET

MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit

Cat. No.: A02269

Overview

Specificity	This product is specific for Certolizumab pegol.
Host Species	Rabbit
Immunogen	Certolizumab pegol
Conjugate	Unconjugated

Applications

Working concentrations for specific applications should be determined by the investigators. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

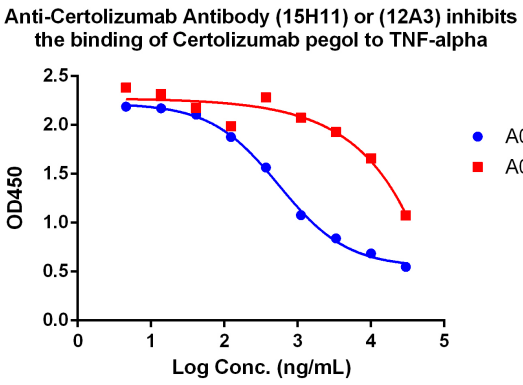
Application	Recommended Usage
Competitive ELISA	1-30 µg/ml
Sandwich ELISA	0.5-2 µg/ml
ELISA	0.01-1 µg/ml

Properties

Form	Lyophilized
Storage Buffer	Lyophilized with PBS, pH 7.2, containing 0.02% sodium azide.
Reconstitution	Reconstitute the lyophilized antibody with deionized water (or equivalent) to a final concentration of 0.5 mg/mL.
Storage Instructions	The lyophilized product remains stable for up to 1 year at -20 °C from the date of receipt. Upon reconstitution, it can be stored for 2-3 weeks at 2-8 °C or for up to 12 months at -20 °C or below. Avoid repeated freezing and thawing cycles.
Purification	Protein A affinity column

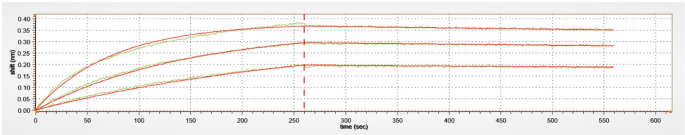
Isotype	Rabbit IgG, κ
Clonality	Monoclonal
Clone ID	12A3
Note	GenScript can customize this product per customer's request including product size, buffer components, etc.

Examples

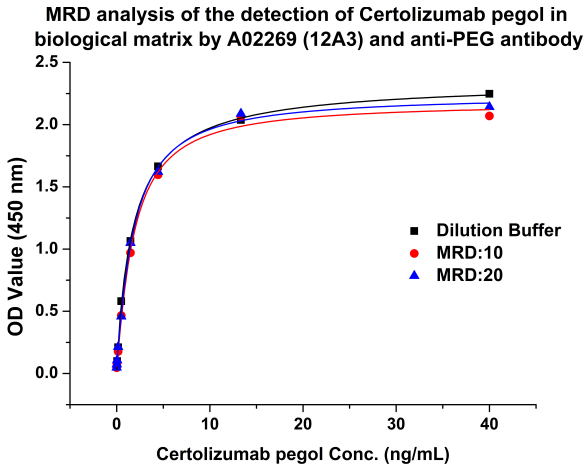


Anti-Certolizumab Antibody (15H11) or (12A3) inhibits the binding of Certolizumab pegol to TNF-alpha.

Coating antigen: TNF-alpha (GenScript, Z01001), 1 μg/mL.
Certolizumab pegol final concentration: 0.25 μg/mL.
Anti-Certolizumab antibody dilutions start from 30 μg/mL.
MonoRab™ Anti-Certolizumab Antibody (15H11), mAb, Rabbit (GenScript, A02268) demonstrated weak inhibitory properties, whereas MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit (GenScript, A02269) demonstrated significant inhibitory properties, with an IC_{50} value of 1.3 μg/mL.

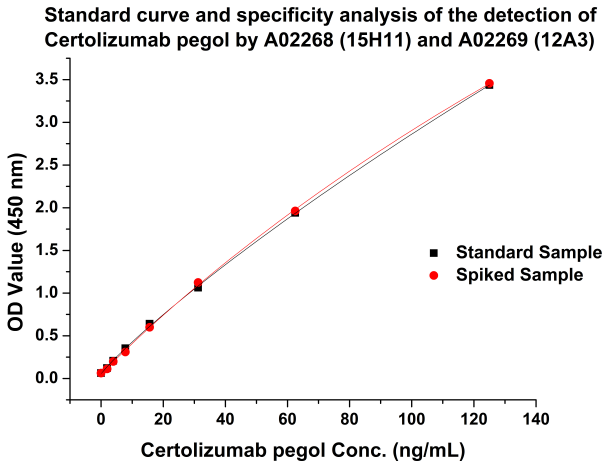


BLI (Biolayer interferometry) binding affinity measurements of MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit (GenScript, A02269) to Certolizumab.
MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit captured on Protein G Probes can bind Certolizumab pegol with a dissociation constant (KD) of 6.62E-10M.



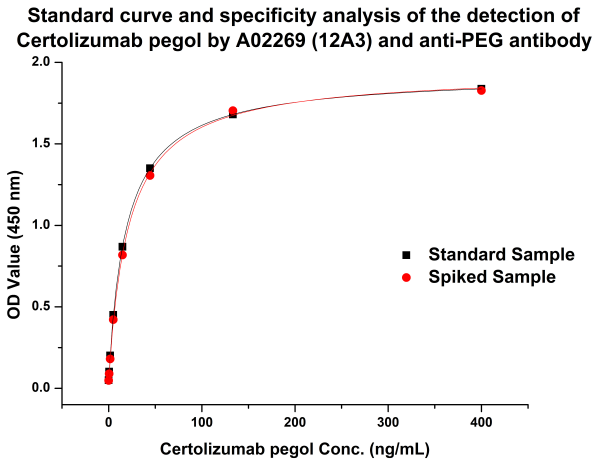
MRD analysis of the detection of Certolizumab pegol in biological matrix by A02269 (12A3) and anti-PEG antibody.

The MRD is the minimum dilution necessary for the detection of Certolizumab pegol in biological matrix with least interference. Serum samples from cynomolgus monkey were serially diluted to determine the MRD of this assay, and the test result suggestedthat MRD was as 1:10.
In the ELISA assay shown in this chart, THE™ PEG Antibody, mAb, Mouse (GenScript, A01795) was coated at a concentration of 2 μg/ml, and MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit (GenScript, A02269) conjugated with Biotin was used as a detection antibody at a concentration of 0.5 μg/mL.



Standard curve and specificity analysis of the detection of Certolizumab pegol by A02268 (15H11) and A02269 (12A3).

Certolizumab pegol standard samples at 8 concentrations were spiked with 5 μg/mL of human IgG1. The test result demonstrated that the high concentration of human IgG1 did not interfere with the detection of Certolizumab pegol.
In the ELISA assay shown in this chart, MonoRab™ Anti-Certolizumab Antibody (15H11), mAb, Rabbit (GenScript, A02268) was coated at a concentration of 2 μg/mL, and MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit (GenScript, A02269) conjugated with Biotin was used as a detection antibody at a concentration of 0.5 μg/mL.
In this assay, a four-parameter logistic curve fitting program was used to create a standard curve with the R-Square is greater than 0.999. The typicaldynamic range of the assay is 1.95-125 ng/mL and its sensitivity of detecting Certolizumab pegol is up to 1.95 ng/mL.



Standard curve and specificity analysis of the detection of Certolizumab pegol by A02269 (12A3) and anti-PEG antibody.

Certolizumab pegol standard samples at 8 concentrations were spiked with 5 μg/mL of human IgG1. The test result demonstrated that the high concentration of human IgG1 did not interfere with the detection of Certolizumab pegol.
In the ELISA assay shown in this chart, THE™ PEG Antibody, mAb, Mouse (GenScript, A01795) was coated at a concentration of 2 μg/ml, and MonoRab™ Anti-Certolizumab Antibody (12A3), mAb, Rabbit (GenScript, A02269) conjugated with Biotin was used as a detection antibody at a concentration of 0.5 μg/mL.
In this assay, a four-parameter logistic curve fitting program was used to create a standard curve with the R-Square is greater than 0.999. The typicaldynamic range of the assay is 0.55-400 ng/mL and its sensitivity of detecting Certolizumab pegol is up to 0.55 ng/mL.

Background

Target Background : Certolizumab pegol, marketed as Cimzia, is a biopharmaceutical drug used to treat Crohn's disease, rheumatoid arthritis, psoriatic arthritis, and ankylosing spondylitis. It is a medication that consists of a humanized Fab fragment, derived from an IgG1 antibody, combined with a polyethylene glycol moiety. This modification replaces the Fc region of the antibody. The purpose of removing the Fc region is to prevent complement fixation and antibody-mediated cytotoxicity, while also significantly extending the half-life of the medication.

Synonyms : Certolizumab, Cimzia, Certolizumab pegol, anti-TNF drug, CZP, CDP870

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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