CERTIFICATE OF ANALYSIS

MONOCLONAL ANTIBODIES

CRP Recombinant Fab Monoclonal Antibody

Code No.	**BR228-D4A3**
Grade	**Affinity Purified**
Lot No.	

RECEIVER INFORMATION

Manufacture Date	
Storage Temperature	below -15°C
Storage Notes	Avoid repeat freeze thaw cycles
Shipping Temperature	Frozen

Note: if product is shipped frozen, but if delayed during shipment, may arrive at destination chilled but thawed. This is acceptable, but customers should consider that a single freeze thaw cycle has occurred and should plan to reduce the occurrence of further freeze thaw cycles.

PRODUCT INFORMATION

Specificity	Antibody specifically detects CRP.
Source	The antibody is a monoclonal recombinant Fab fragment derived from a Murine B-cell phage display library, cultured in and purified from *E. coli.*
Application	Competitive ELISA, ELISA, Lateral Flow (Detection antibody), Luminex. Other applications not tested.
Range of Detection	Range of Detection: 151 - 231000 ng/mL. Please note antibody sensitivity is assay dependent. These antibodies have been optimised for detection of a particular clinical condition, and it is likely that the Range of Detection can be extended beyond the information published here.
Clone Number	D4A3
Isotype	Fab fragment based on IgG1 and kappa light chain.
Host	Phage Display system. Expressed in and purified from *E. coli*.
Purification Method	Nickel Chelate Chromatography (His tag purification) followed by anion exchange chromatography followed by Protein G affinity purification.
Presentation	50 mM Potassium Phosphate, 10 mM Boric Acid, 150 mM NaCl, pH 7. No preservative used.
Purity	>95% (SDS-PAGE)
Reduction to Monomers	See under Technical Considerations

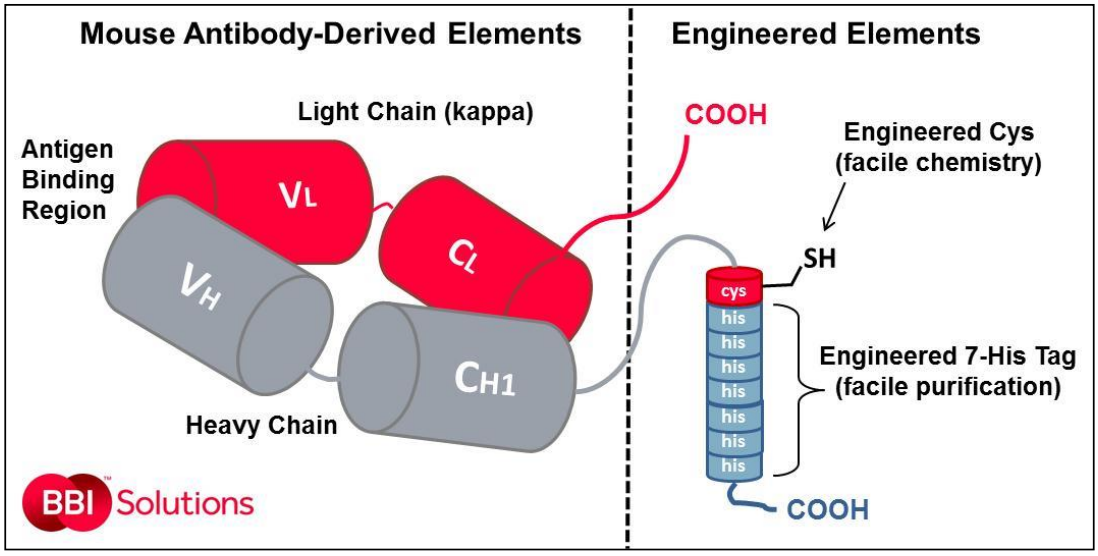
Technical Considerations

These recombinant Fab Monoclonal Antibodies were developed using phage display technology and the Luminex platform. For each biomarker, typically 10 ^{9} phage members and >4500 matched pairings were screened to find the best antibody pairing.

The antibodies are highly scalable and reproducible, additionally comprising engineered features including a Cysteine for site-specific conjugation. The antibodies can be treated as for standard Fab fragments.

During standard fermentation and purification, a recombinant Fab antibody can have a portion of the molecules as the disulfide-linked homodimer. If using the Cysteine for conjugation it is advisable to first reduce to monomers. The monomers can be covalently "capped" with a thiol-directed alkylating reagent such as N-ethylmaleimide.

Recombinant Fab Monoclonal Antibodies: Schematic Diagram



For full Technical Information, FAQs and Product Support, please see our website http://www.bbisolutions.com under the Support section.
http://www.bbisolutions.com/support/technical-information/recombinant-antibodies-technical-information

For Research use only. To discuss licencing for commercial use of Recombinant Fab Monoclonal Antibodies please contact your Account Manager at BBI Solutions.

HEALTH AND SAFETY

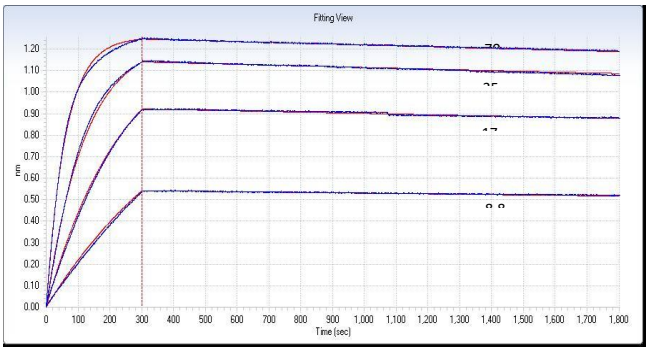
Application	For in-vitro use and research or further processing only.
Precaution	No test can guarantee the absence of an infectious agent. Please handle as potentially hazardous.
Material Safety	For further information and technical details, please download a Safety Data Sheet at www.bbisolutions.com or contact your BBI Account Manager.

ANALYSIS

TESTS	SPECIFICATIONS	RESULTS
Determination Method:		
Protein Concentration by Optical Density at 280nm using $E_{1\%,1cm}$ = 1.60	≥0.5 mg/ml	mg/ml

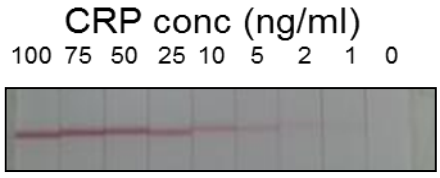
CRP recombinant Fab affinity data

- The Binding of a previous Lot of CRP Recombinant Fab Monoclonal Antibody (BR228-D4A3) to CRP at 30°C



- Biotinylated antigen was immobilised onto a streptavidin sensor.
- Kd measured using an Octet system = 0.138nM.

Lateral Flow An example of a previous batch of BR228-D4A3 Fab Monoclonal Antibody in Lateral Flow.



This shows the antibody is able to detect down to < 2ng/ml in Lateral Flow allowing high sensitivity assays.

Name:		**Position:**	
Signed:		**Date:**	