



DATA SHEET

PRODUCT NAME Anti-SARS-CoV-2 RBD Wuhan-variant specific monoclonal antibody (clone 486)

REPOSITORY REFERENCE 101116-A

LOT NUMBER OFD

DESCRIPTION A Wuhan RBD/ spike-specific mouse monoclonal antibody to Wuhan/WA01 SARS-CoV-2.

The plasmid expressing the monoclonal antibody was sequenced and transfected in CHO cells for 10-liter scale production. Accelerated stability studies to evaluate the effect of 3 freeze-thaw cycles and exposure to 40°C for 3 days were conducted on the purified antibody. No differences in antibody stability were observed by size exclusion ultraperformance liquid chromatography and capillary electrophoresis SDS under the accelerated conditions studied.

Antibody clone 486 was found to recognise the Wuhan/WA01 SARS-CoV-2 RBD and spike antigens while not detecting Delta, Gamma or Omicron variants.

SPECIFICITY

Reactivity	Variant	Protein	Expression
+	Wuhan*	RBD	Yeast
-	Delta*	RBD	Yeast
-	Beta	RBD	HEK293
-	Delta	RBD	HEK293
+	K417N	RBD	HEK293
-	L452R	RBD	HEK293
+	T478K	RBD	HEK293
-	E484K	RBD	HEK293
-	N501Y	RBD	HEK293
-	Gamma*	RBD	HEK293
-	Omicron BA.1*	RBD	HEK293
-	Omicron BA.2.12.1	RBD	HEK293
-	Omicron BA.4*	RBD	HEK293
+	Wuhan*	Spike	Insect
-	Delta	Spike	Insect
+	Wuhan*	Spike	NDV-spike

* Antigens are shown in sample ELISA specificity in Figure 1.



Table 1. Specificity of antibody clone 486 binding to antigen variants

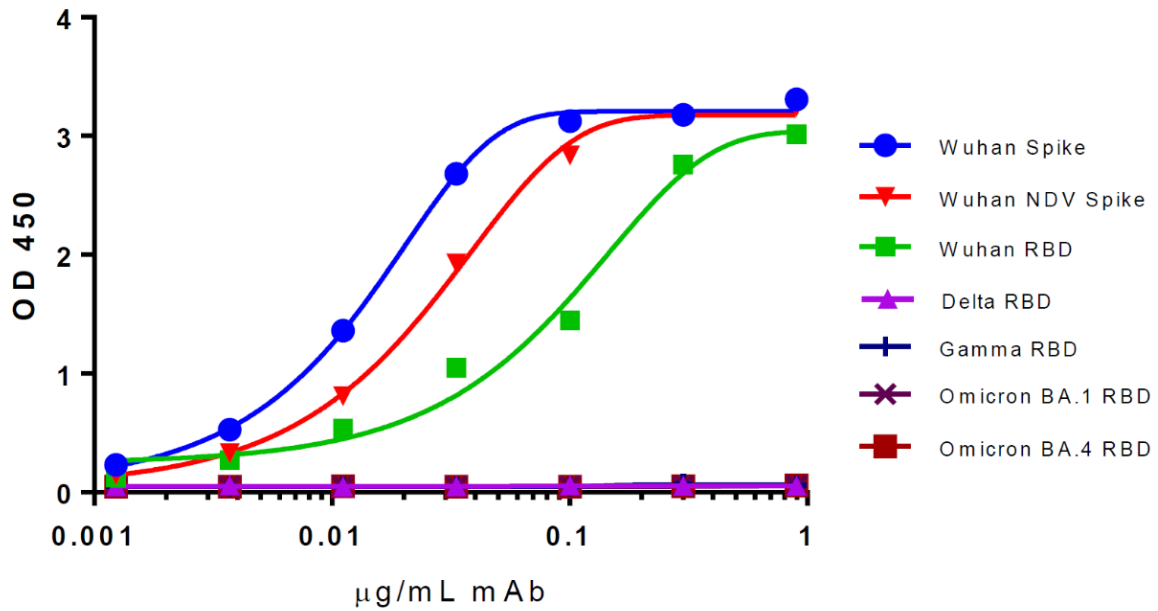


Figure 1. Antibody clone 486 specificity. Dilutions of the purified clone 486 CHO antibodies were used to detect immobilized antigens on ELISA plates (*Antigens shown in Table 1).

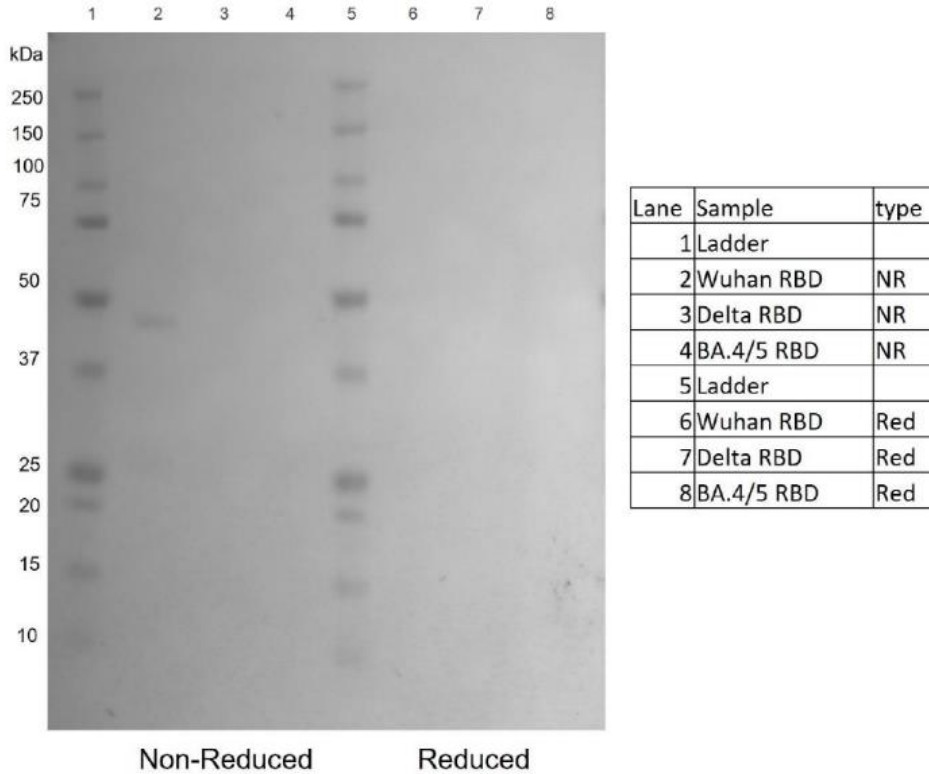


Figure 2. Western blot using antibody clone 486. The antibody detects a dimer in non-reduced Wuhan RBD and does not detect reduced Wuhan RBD.

PROVIDED	200µg (5.15 mg/mL)
STORAGE	-80°C
DEPOSITOR	Jessica White, PATH
ADDITIONAL INFORMATION	Available upon request

ACKNOWLEDGEMENTS

Publications should acknowledge the contributor and the Centre for AIDS Reagents (CFAR). Acknowledgments should read: “The *Name of Reagent (Repository Number)* was obtained from the Centre for AIDS Reagents, NIBSC, UK, thanks to Jessica White, PATH.”

MATERIAL SAFETY SHEET



Physical properties (at room temperature)	
Physical appearance	Clear, liquid
Fire hazard	None
Chemical properties	
Stable	Yes
Corrosive:	No
Hygroscopic	No
Oxidising:	No
Flammable	No
Irritant:	No
Other: This product is a genetically modified material; it is the responsibility of the end user to seek local biosafety approval for the storage and handling of the material in their workplace	
Handling: CAUTION - This preparation is not for administration to humans or animals in the human food chain. This preparation is hazardous to health. It should be used and discarded according to your own laboratory's safety procedures. Such safety procedures should include the wearing of protective clothing, gloves, and avoiding the generation of aerosols.	
Toxicological properties	
Effects of inhalation:	Not established, avoid inhalation
Effects of ingestion:	Not established, avoid ingestion
Effects of skin absorption:	Not established, avoid contact with skin
Suggested First Aid	
Inhalation	Seek medical advice
Ingestion	Seek medical advice
Contact with eyes	Wash with copious amounts of water. Seek medical advice.
Contact with skin	Wash thoroughly with water.
Action on Spillage and Method of Disposal	
Spillage of vial contents should be taken up with absorbent material wetted with an appropriate virucidal agent. Rinse area with a virucidal agent followed by water.	