



CERTIFICATE OF ANALYSIS

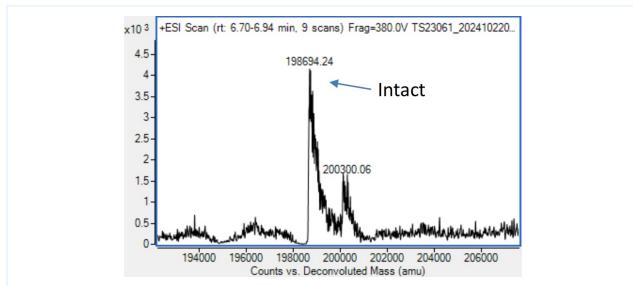


Product Details

Product name:	Anti-PD-1 & CTLA-4 Reference Antibody (Cadonilimab)	Lot.No.:	P247890
Target:	CTLA-4 / CD152, PDCD1 / PD-1 / CD279	Catalog:	CHBA002
Target Accession:	Q15116 & P16410	Concentration :	1 mg/mL
Clonality:	Bispecific	Isotype:	IgG-scFv
Reactivity:	Human	Molecular Weight (kDa) :	198.64 kDa
Application:	Kinetics (SPR), ELISA, Bioactivity: FACS, Functional assay, Research in vivo	Endotoxin:	<1 EU/mg
Formulation:	Liquid: 100mM Pro-Ac, 20mM Arg pH 5.0 Lyophilization: 25mM histidine, 8% sucrose, 0.01% Tween80 pH6.2	Conjugation:	Unconjugated
Reconstitution:	For Powder, reconstitute with sterile, distilled water to a final concentration of 1 mg/ml. Gently shake to solubilize completely. Do not vortex.	Expression System:	CHO
Storage:	Upon receipt, store immediately at -20°C or lower for 24 months. Store aliquots at -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.	Purification:	Protein A

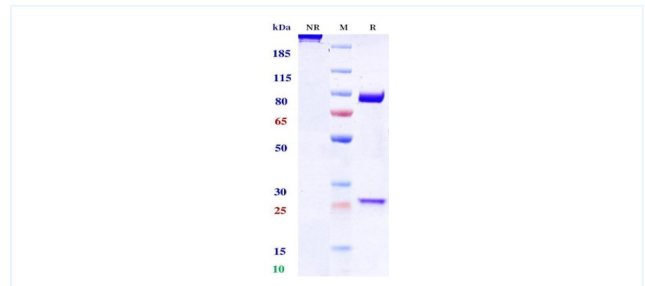
Data

MASS



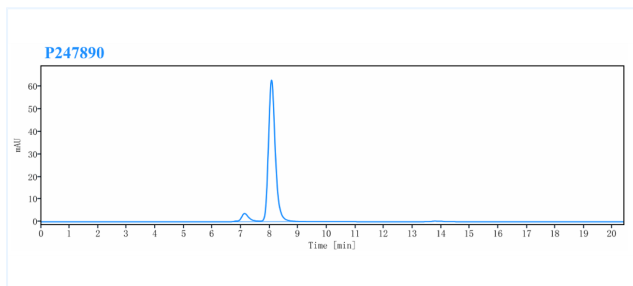
The detected molecular weight of Anti-PD-1 & CTLA-4 Reference Antibody (Cadonilimab) is 198.69 kDa.

Purity: SDS-PAGE



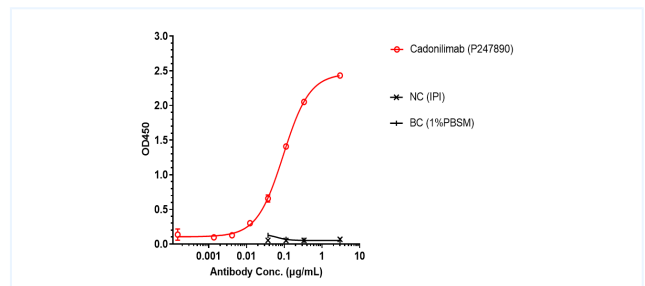
Anti-PD-1 & CTLA-4 Reference Antibody (cadonilimab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.

Purity: SEC-HPLC



The purity of Anti-PD-1 & CTLA-4 Reference Antibody (cadonilimab) is 98.79%, determined by SEC-HPLC.

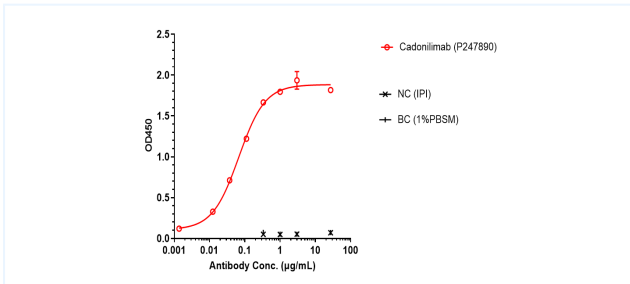
ELISA



Cadonilimab bound to PD-1 protein, and then rebounded to secondary antibodies(Anti-Human-IgG-Fc-HRP), and read OD450. As shown in fig, Cadonilimab bound to in human PD-1 Protein-His, and the EC50 was 0.09436 nM.

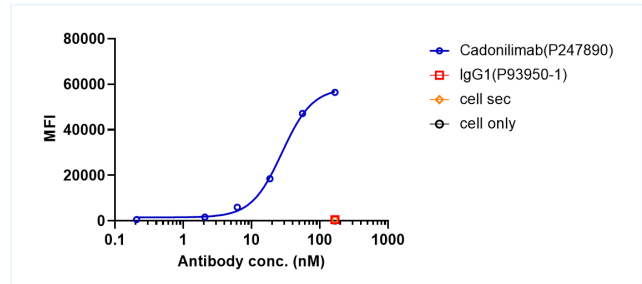
The products are for research use only. Not for use in diagnostic procedures.

ELISA



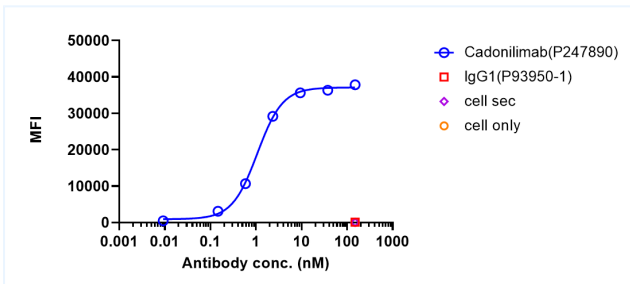
Cadonilimab bound to CTLA4 protein, and then rebounded to secondary antibodies(Anti-Human-IgG-Fc-HRP), and read OD450. As shown in fig, Cadonilimab bound to in human CTLA4 Protein-His, and the EC50 was 0.06733 nM.

Bioactivity: FACS



Cadonilimab bound to huCTLA4-CHO cells, and then rebounded to fluorescent secondary antibodies(Anti-Human IgG, Fcy PE), and test by flow cytometry. As shown in fig, Cadonilimab bound to huCTLA4-CHO cells, and the EC50 was 27.870 nM.

Bioactivity: FACS



Cadonilimab bound to PD-1-Jukat cells, and then rebounded to fluorescent secondary antibodies(Anti-Human IgG, Fcy), and test by flow cytometry. As shown in fig, Cadonilimab bound to PD-1-Jukat cells, and the EC50 was 1.071 nM.

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