



CERTIFICATE OF ANALYSIS

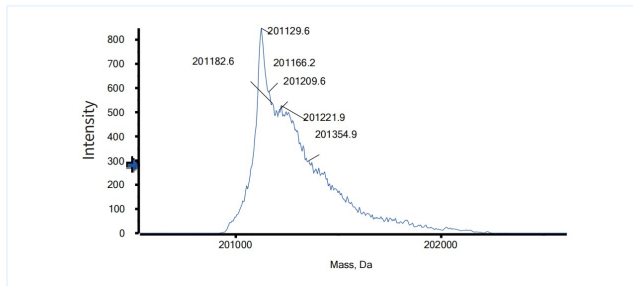


Product Details

Product name:	Anti-PD-1 & VEGF Reference Antibody (Ivonescimab)	Lot.No.:	P263328C
Target:	PDCD1 / PD-1 / CD279, VEGF	Catalog:	CHBA056
Target Accession:	Q15116 & P15692	Concentration :	1 mg/mL
Clonality:	Bispecific	Isotype:	IgG-scFv
Reactivity:	Human	Molecular Weight (kDa) :	201.12 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

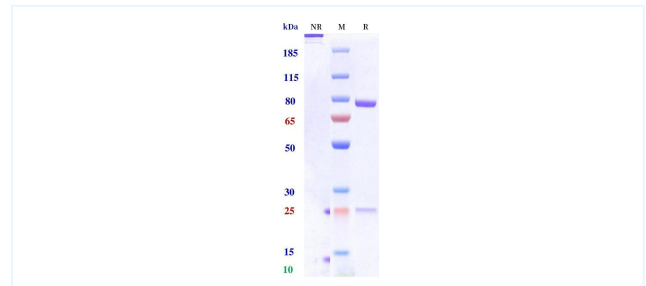
Data

MASS



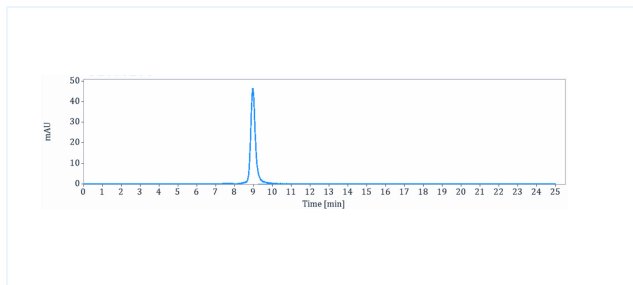
The detected molecular weight of Anti-PD-1 & VEGF Reference Antibody (Ivonescimab) is 201.13 kDa.

Purity: SDS-PAGE



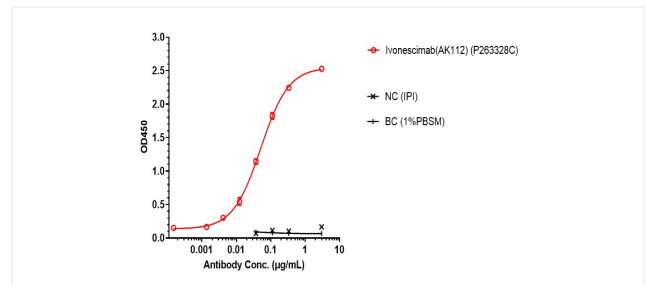
Anti-PD-1 & VEGF Reference Antibody (Ivonescimab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.

Purity: SEC-HPLC



The purity of Anti-PD-1 & VEGF Reference Antibody (Ivonescimab) is 98.33%, determined by SEC-HPLC.

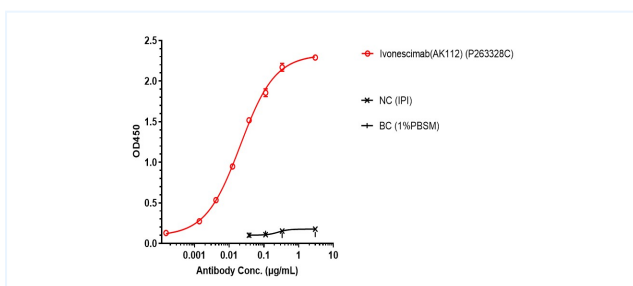
ELISA



Ivonescimab bound to PD-1 protein, and then rebounded to secondary antibodies (Anti-human-IgG-Fc-HRP), and read OD450. As shown in fig, Ivonescimab bound to huPD-1-His, and the EC50 was 0.051 nM.

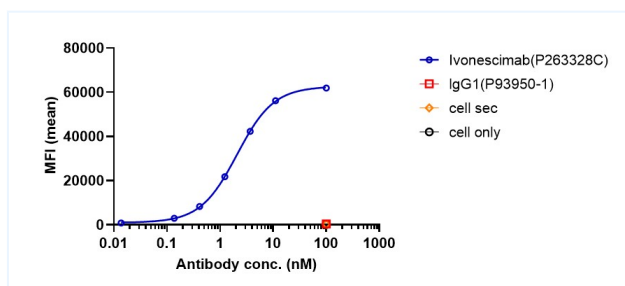
The products are for research use only. Not for use in diagnostic procedures.

ELISA



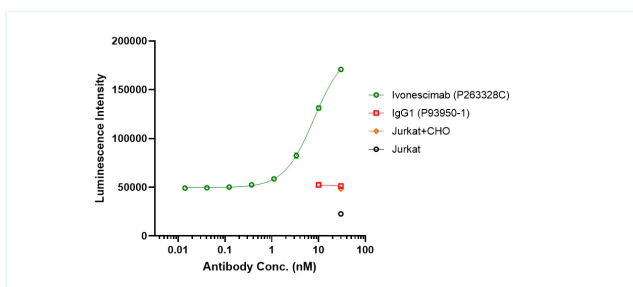
Ivonescimab bound to VEGFA protein, and then rebounded to secondary antibodies(Anti-human-IgG-Fc-HRP), and read OD450. As shown in fig, Ivonescimab bound to huVEGFA-His, and the EC50 was 0.021 nM.

Bioactivity: FACS



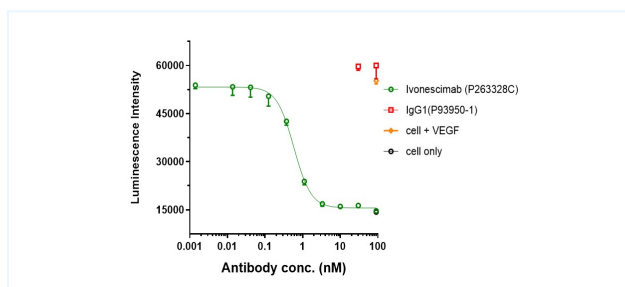
Ivonescimab bound to huPD-1-Jurkat cells, and then rebounded to fluorescent secondary antibodies(Anti-human IgG, Fcy PE), and test by flow cytometry. As shown in fig, Ivonescimab bound to huPD-1-Jurkat cells, and the EC50 was 6.274 nM.

Function: Luciferase



Co-incubation of Ivonescimab with PD-1-NF-AT-Jurkat and CD3L-huPD-L1-CHO-K cells and incubated for 6 hours. Bright-Lite was used to detect the fluorescent signal. As shown in fig, Ivonescimab was able to block the PD-1/PD-L1 signaling pathway, and the EC50 was 7.957 nM.

Function: Luciferase



Co-incubation of Ivonescimab with VEGF protein, then with the addition of VEGF-NF-AT-HEK293 cells and incubated for 6 hours. Bright-Lite was used to detect the fluorescent signal. As shown in fig, Ivonescimab can neutralize VEGF-165, and the IC50 was 7.957 nM.

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