



# CERTIFICATE OF ANALYSIS

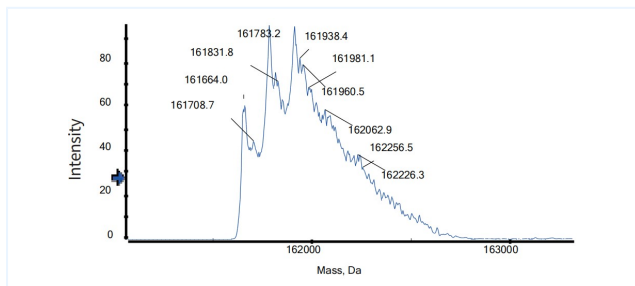


## Product Details

Product name:	Anti-IL-17 & TNF-alpha Reference Antibody (COVA322)	Lot.No.:	P267998
Target:	TNFSF2 / TNFa, IL-17 / IL-17A / CTLA-8	Catalog:	CHBA043
Target Accession:	Q16552-1 & P01375	Concentration :	1 mg/mL
Clonality:	Bispecific	Isotype:	IgG-VHH
Reactivity:	Human	Molecular Weight (kDa) :	161.9 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

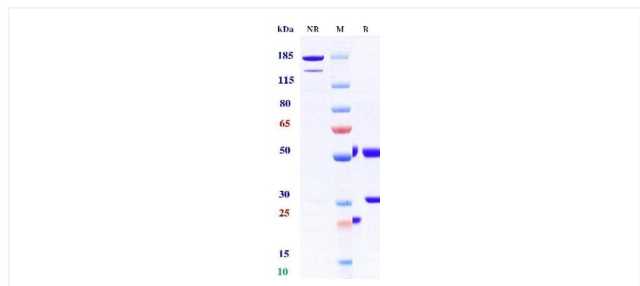
# Data

## MASS



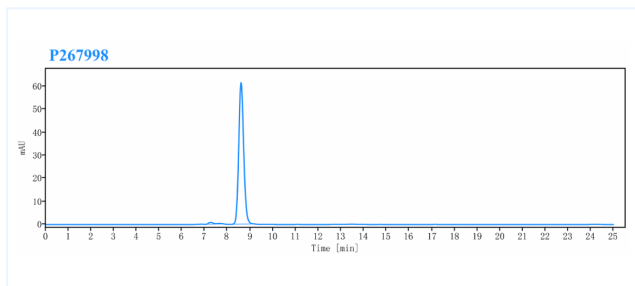
The detected molecular weight of Anti-IL-17 & TNF-alpha Reference Antibody (COVA322) is 161.78 kDa.

## Purity: SDS-PAGE



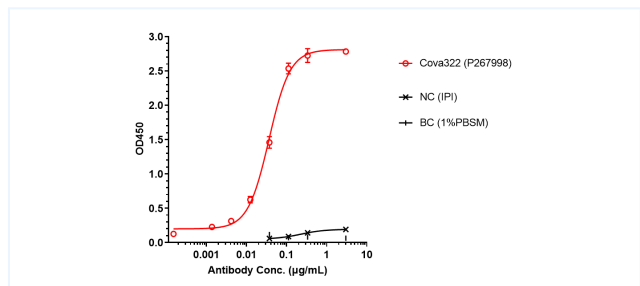
Anti-IL-17 & TNF-alpha Reference Antibody (COVA322) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.

## Purity: SEC-HPLC



The purity of Anti-IL-17 & TNF-alpha Reference Antibody (COVA322) is 98.28%, determined by SEC-HPLC.

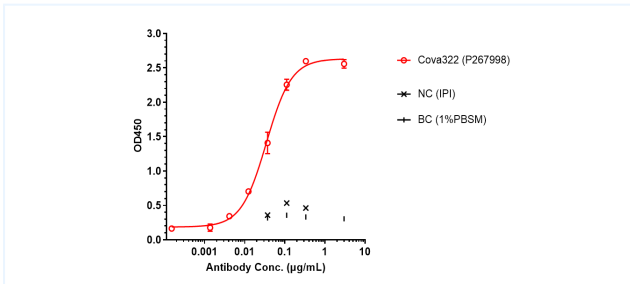
## ELISA



Cova322 bound to CTLA-8 / IL-17a protein, and then rebounded to secondary antibodies (Anti-Human-IgG-Fc-HRP), and read OD450. As shown in fig, Cova322 bound human CTLA-8 / IL-17a Protein-His, and the EC50 was 0.03639 nM.

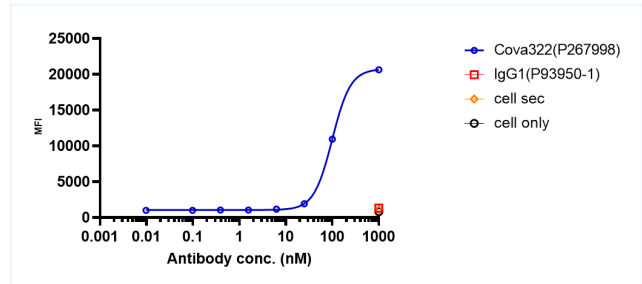
The products are for research use only. Not for use in diagnostic procedures.

## ELISA



Cova322 bound to TNFSF2 / TNF $\alpha$  protein, and then rebounded to secondary antibodies(Anti-Human- $\kappa$ + $\lambda$ -HRP) , and read OD450. As shown in fig, Cova322 bound TNFSF2 / TNF $\alpha$ , and the EC50 was 0.03458 nM.

## Bioactivity: FACS



Cova322 bound to HuTNF-a-his/CHO-K(0706-32-15) cells, and then rebounded to fluorescent secondary antibodies(Anti-Human IgG, Fcy PE) , and test by flow cytometry. As shown in fig, Cova322 bound to HuTNF-a-his/CHO-K(0706-32-15) cells, and the EC50 was 99.590 nM.

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