

# Anti-Chicken IgY, AlpHcAbs<sup>®</sup> Goat antibody(Biotin)

## Summary

Code	024-401-004
Immunogen	Recombinant Fc region of chicken IgY
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to goat IgG Fc
Conjugate	Biotin-SP (long spacer)
Specificity	Fc region of chicken IgY
Cross-Reactivity	No cross-reactivity with mouse, rabbit, human, cynomolgus, rat, goat IgG
Purity	Recombinant Expression and Affinity purified
Concentration	1mg/ml
Formation	Liquid, 10mM PBS (pH 7.5), 0.05% sucrose, 0.1% trehalose, 0.01% proclin300
Storage	Store at -20 °C(Avoid freeze / thaw cycles), Stable for 12 months at -20°C

## Description

Anti-Chicken IgY, AlpHcAbs<sup>®</sup> Goat antibody(Biotin) is designed for detecting chicken IgY specifically. Anti-Chicken IgY, AlpHcAbs<sup>®</sup> Goat antibody(Biotin) is based on monoclonal, recombinant, goat IgG Fc fused single domain antibody to chicken IgY coupled to Biotin. Based on immunoelectrophoresis and/or ELISA, Anti-Chicken IgY, AlpHcAbs<sup>®</sup> Goat antibody(Biotin) reacts with the chicken IgY selectively, no reactivity with mouse, rabbit, human, cynomolgus, rat, goat IgG.

## Background

Hens egg yolk immunoglobulins IgY can be transferred from the serum of mother hen to the offspring egg yolk to acquire immunity. In the immunodiagnostic technologies, IgY is an excellent antibody for using in immunological assays involving mammalian sera, due to discriminative properties of IgY compared to mammalian IgG, as IgY does not react with the rheumatoid factor and human anti-mouse IgG antibodies do not activate the complement system and do not bind to Fc receptor. Also, they have poor cross reactivity to mammalian IgG due to immunological differences. IgY does not contain a hinge region but does contain an additional constant domain. The whole IgY molecule possesses both the Fc region and the Fab region, which possessing the epitope-recognition site. The IgY contains two heavy and light chains. The common IgY is monomeric with a molecular weight of approximately 170 kDa.

VHH are single-domain antibodies derived from the variable regions of heavy chain of Camelidae immunoglobulin. The size of VHH is extremely small(<15KDa) compared to other forms of antibody fragment, which significantly increase the permeability of VHH. Thus VHH is considered of great value for research, diagnostics and therapeutics.

## Benefits

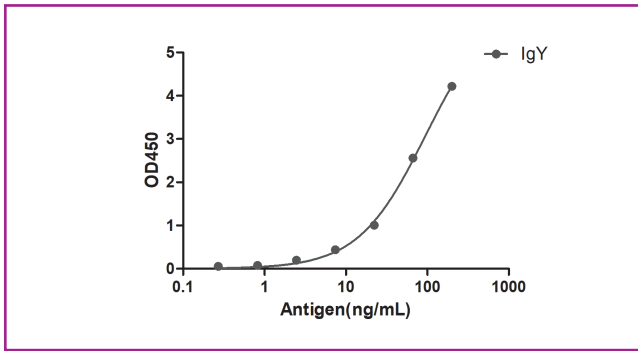
High lot-to-lot consistency  
 Increased sensitivity and higher affinity  
 Animal-free production

## Suggested Working Concentration

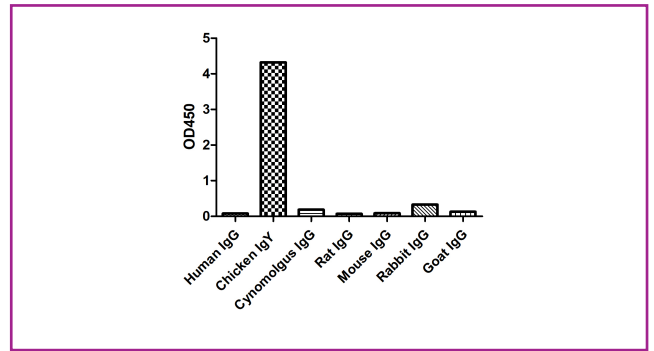
ELISA	1:10000-1:50000
WB	1:10000-1:50000

Dilution factors are presented in the form of a range because the optimal dilution is a function of many factors, such as antigen density, permeability, etc. The actual dilution used must be determined empirically.

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A titer ELISA of chicken IgY. The plate was coated with different amounts of chicken IgY. 1:10000 dilution of Anti-Chicken IgY, AlpHcAbs® Goat antibody(Biotin) was used as the primary antibody. An HRP conjugated streptavidin as the secondary antibody.



ELISA of specificity for different species of IgG. The plate was coated with 2ug/ml of different IgG. 1:1000 dilution of Anti-Chicken IgY, AlpHcAbs® Goat antibody(Biotin) was used as the primary antibody. An HRP conjugated streptavidin as the secondary antibody.

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