

# IgA (H-300): sc-66930

## BACKGROUND

Immunoglobulins are four-chain, Y-shaped, monomeric structures comprised of two identical heavy chains and two identical light chains held together through interchain disulfide bonds. The chains form two domains, the Fab (antigen binding) fragment and the Fc (constant) fragment. Immunoglobulin A (IgA) is the main protein of the mucosal immune system. It is generated by B cells in gut-associated lymphoid tissues. Daily production of IgA exceeds that of any of the other immunoglobulins. The IgA heavy chain is an  $\alpha$ -chain, and the light chains are either  $\kappa$ - or  $\lambda$ - chains. IgA exists mainly in dimers but can also exist as polymers or as monomers. Dimers and polymers contain a joining (J) chain that can be bound by the polymeric immunoglobulin receptor (pIgR) for transportation of the molecule to mucosal surfaces.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: IGHA1/IGHA2 (human) mapping to 14p13.

## SOURCE

IgA (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of IgA<sub>1</sub> of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

IgA (H-300) is recommended for detection of IgA<sub>1</sub> and IgA<sub>2</sub> of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight (predicted) of IgA: 38 kDa.

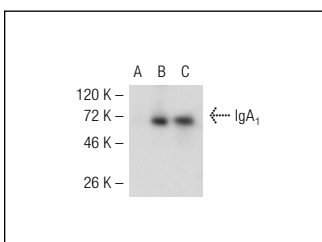
Molecular Weight (observed) of IgA: 52-69 kDa.

Positive Controls: IgA1 (h): 293T Lysate: sc-111633 or human PBL whole cell lysate.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



IgA (H-300): sc-66930. Western blot analysis of IgA<sub>1</sub> expression in non-transfected 293T: sc-117752 (A), human IgA<sub>1</sub> transfected 293T: sc-111633 (B) and human PBL (C) whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Satisfaction  
Guaranteed

Try **IgA (A-9): sc-373823** or **IgA (B-12): sc-166334**, our highly recommended monoclonal alternatives to IgA (H-300).