

# Human IgA (Secreted) Antibody PE Conjugate

Hybridoma Monoclonal Antibody

## Product Information

**Product No.:** I-1277

**Clone:** HP6141

**Isotype:** Mouse IgG1  $\kappa$

**Storage:** Sterile 2° to 8°C

## Product Description

### Specificity:

Clone HP6141 activity is directed against secreted IgA.

### Antigen Distribution:

IgA is produced by B lymphocytes. Secretory IgA (SIgA) is secreted by connective tissue, especially intestinal and respiratory tracts as well as lactating breast tissue. IgA is the major Ig isotype present in extracellular fluids secreted by epithelia and is also present in serum.

### Background:

IgA antibodies protect epithelial surfaces from infection by preventing the attachment of bacteria, viruses, and other pathogens to epithelial cells as well as by neutralizing bacterial toxins at mucosal surfaces<sup>1</sup>. IgA antibodies also provide protection against infection in newborns via the ingestion of breast milk, into which IgA is naturally secreted. IgA can also act as an opsonin and weak complement activator as part of the immune defense response. Secretory IgA also plays a role in regulating the gut microbiome<sup>2</sup>.

IgA-secreting plasma cells are found in lamina propria, a type of connective tissue located immediately below the basement membrane of surface epithelia<sup>1</sup>. Once secreted, IgA antibodies are transported to the external surface of the epithelium as a dimer, where they bind to the poly-Ig receptor present on the basolateral surface of epithelial cells. Transcytosis and cleavage of the receptor then occur, which releases the extracellular portion of the Ig receptor while still attached to the Fc region of IgA. This molecule can then diffuse into the extracellular space and drain into the bloodstream.

### Known Reactivity Species:

Human

### Format:

R-phycoerythrin (PE)

### Formulation

This R-phycoerythrin (R-PE) conjugate is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

### Storage and Stability

This R-phycoerythrin (R-PE) conjugate is stable when stored at 2° to 8°C.

### Do not freeze

**Other Applications Reported in Literature:**

ELISA

**Country of Origin**

USA

**References**

- 1) Janeway CA Jr, Travers P, Walport M, et al. Immunobiology: The Immune System in Health and Disease. 5th edition. New York: Garland Science; 2001. The distribution and functions of immunoglobulin isotypes. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK27162/>
- 2) Pietrzak B, Tomela K, Olejnik-Schmidt A, et al. Int J Mol Sci. 21(23):9254. 2020.
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- 4) Bladh O, Aguilera K, Marking U, et al. Front Immunol. 15:1346749. 2024.
- 5) Kulis M, Saba K, Kim EH, et al. J Allergy Clin Immunol. 129(4):1159-1162. 2012.