

## Product Information

### IgA from human serum

reagent grade  
affinity isolated immunoglobulin

Catalog Number **I4036**

### Product Description

Purified human IgA is isolated from pooled normal human sera by affinity purification using immobilized anti-IgA antibodies. The sera are tested and found negative for antibodies to HIV and HBsAg. Identity and purity of the purified human IgA is established by HPLC and immunoelectrophoresis (IEP). IEP versus anti-human whole serum and anti-human IgA results in a single IgA arc, negative for human IgG and IgM.

Human IgA exists in 2 forms. It is a monomer in the serum and a dimer in mucosal secretory tissues [secretory IgA (sIgA)]. Secretory IgA is a complex comprising two IgA monomers, a connecting J chain, and a secretory component. Its function is to provide protective immunity to the vulnerable mucosal surfaces by preventing invasion of inhaled and ingested pathogens.<sup>1-3</sup> Monomeric serum IgA functions as an anti-inflammatory antibody by interacting with FcαR (CD89) on immune effectors cells. This interaction functions as a second line of defense by eliminating pathogens that have breached the mucosal surface. Serum IgA can activate a variety of effector mechanisms such as antibody-dependent-cell-mediated cytotoxicity (ADCC), phagocytosis by cells of the myeloid lineage including monocytes, macrophages, neutrophils and eosinophils, respiratory burst activity by polymorphonuclear leukocytes and degranulation of eosinophils and basophils. However, serum IgA is a poor activator of complement.<sup>1-3</sup>

### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

### Precautions and Disclaimer

This product is for R&D use only, not for drug, household or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### Storage/Stability

Store at -20 °C. For continuous use, store at 2-8 °C for up to one month. For extended storage, the solution may be frozen in working aliquots at -20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

### Product Profile

Protein: 0.8-1.2 mg/mL by absorbance at 280 nm  
(E<sub>1% 280</sub> = 13.0)

Purity: >95% (HPLC)

**Note:** In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

### References

1. Snoeck, V., *Vet. Res.*, **37**, 455-7 (2006).
2. Slack, E., *Frontiers in Immunology.*, **3**, Article 100 (2012).
3. Spencer, J., *Frontiers in Immunology.*, **3**, Article 108 (2012).

EK,TD,PHC 08/12-1