



# Human IgG Subclass Screening Kit

## Catalog # IM50

-----

### Intended Use

This kit contains individual, highly specific anti-human IgG subclass antibodies (anti-human IgG<sub>1</sub>, anti-human IgG<sub>2</sub>, anti-human IgG<sub>3</sub>, and anti-human IgG<sub>4</sub>) labeled with the enzyme Horse Radish Peroxidase (HRP). When appropriately diluted these antibody:HRP conjugates can be used for identifying the type of IgG response to a particular antigen. Because of the specificity of these conjugates they can also be used as labels in ELISA for quantitation of the individual IgG subclasses. The kit is for research use only and is not intended for diagnostic use in humans or animals.

### Summary and Explanation

The identification and quantitation of the various subclasses of human IgGs can provide important information as to the mechanism and causes of antigenicity as well as presumptive diagnosis of some diseases. This kit contains a conveniently packaged array of the 4 anti-human IgG:HRP conjugates that can be used in a variety of procedures such as ELISA and immunoblotting. The kit also contains a conjugate diluent to allow for long term stability of the diluted conjugates while also minimizing false positive reactions that sometimes plague immunochemical techniques.

The reagents in this kit can be used to type the immunoglobulin response of research subjects to a given antigen. For example, the antigen of interest, be it a therapeutic protein, infectious agent, or other putative antigen, can first be coated onto microtiter wells and then reacted with test sera from the subject patient. After a wash step to remove unbound patient serum, the various diluted conjugates provided in this kit are added to replicate wells. After a final wash step, the addition of an HRP substrate will identify those wells reacting to a particular IgG subclass.

When used together with specific capture antibodies and calibrators/standards to individual human IgG subclasses, the conjugates provided in this kit can also be used to quantitate IgG subclasses.

Cygnus Technologies also sells the various anti-human immunoglobulin specific conjugates separately as well as an anti-human h & l chain:HRP conjugate (Cat# IM23) that cross reacts with all human immunoglobulins and can thus be used to screen for antibody response in general. In addition we offer the following related products:

**Cat. # IM40** – Human Immunoglobulin (IgA, IgD, IgE, IgG gamma chain specific, and IgM mu chain specific) Screening Kit

**Cat. # IM10** – Immunogenicity Screening Kit (microtiter plate based) for passively coated antigens

**Cat. # IM20** - Immunogenicity Screening Kit (microtiter plate based) for biotin:streptavidin coated antigens

**Cat. # IM105** – TMB substrate for HRP, 100mL

**Cat. # IM103** – HRP conjugate diluent, 1L

**Cat. # IM30** – Biotinylation Kit for proteins

### Procedural Recommendations

The antibody:HRP conjugates provided in this kit are first diluted in either the conjugate diluent supplied with this kit or in another diluent provided by your laboratory. The optimal dilution must be experimentally determined for each conjugate and as a function of the assay procedure used. As a general guideline we suggest a good starting point is at least a 1:100 dilution. When using the diluent provided in this kit, HRP conjugates should be stable for more than 18 months when stored at 2 to 8 °C.

### Reagents & Materials Provided

Component	Product #
Sheep anti-hIgG <sub>1</sub> :HRP, 1mL	IM151
Sheep anti-hIgG <sub>2</sub> :HRP, 1mL	IM152
Sheep anti-hIgG <sub>3</sub> :HRP, 1mL	IM153
Sheep anti-hIgG <sub>4</sub> :HRP, 1mL	IM154
Conjugate Diluent	IM103
Tris buffered saline with non-mammalian protein additives and preservatives, 1x100mL	

### Storage & Stability

\* All reagents should be stored at 2°C to 8°C until the expiration date printed on the label. **Do not freeze!**

\* When using the conjugate diluent provided with this kit conjugates diluted to their final assay concentration will normally be stable for at least 18 months when stored at 2-8°C.

## Limitations of the Reagents

- The reagents provided in this kit are **For Research Use Only** and are not intended for clinical or diagnostic use in human or animals.

- Users of this kit are strongly encouraged to contact our technical services department for advice on how to best utilize this kit and interpret test results.

- While the anti-human:HRP conjugates have been determined to be immunologically specific for most applications. The user of these reagents should be aware that immunochemical methods may be prone to false positive reactions or other types of cross reactions. Where deemed critical to your experiment, you should attempt to confirm that the reagents provided are adequately specific for your needs by validating them against some other standardized method. *Cygnus Technologies, Inc.* makes no warranty, expressed or implied that the reagents in this kit will be suitable for a particular analytical procedure. In no event will *Cygnus Technologies, Inc.* be held liable for special, consequential, or indirect damages regardless of cause of action.

## Precautions

**For research use only. Not for clinical or diagnostic use in humans or animals.**

**At the concentrations used in this kit none of the other reagents are believe to be harmful.**

**This kit should only be used by qualified technicians.**

### **Ordering Information/ Customer Service**

**To place an order or to obtain additional product information contact *Cygnus***

***Technologies* Customer Support:**

**Tel: 910-454-9442 Fax: 910-454-9443**

**Email: [cygnustec@aol.com](mailto:cygnustec@aol.com)**

**Web site: [www.cygnustechnologies.com](http://www.cygnustechnologies.com)**

**4701 Southport Supply Road SE, Suite 7  
Southport, NC 28461 USA**