

## Datasheet for 209-1102

## Human IgG (H&L) Antibody

### Overview

|                      |                                               |
|----------------------|-----------------------------------------------|
| <b>Description:</b>  | Goat Anti-Human IgG (H&L) Antibody - 209-1102 |
| <b>Item No.:</b>     | 209-1102                                      |
| <b>Size:</b>         | 50 mg                                         |
| <b>Applications:</b> | Microarray                                    |
| <b>Reactivity:</b>   | Human                                         |
| <b>Host Species:</b> | Goat                                          |

### Product Details

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Anti-Human IgG (H&L) generated in goat detects human Immunoglobulin G (IgG), both heavy and light chains of the antibody molecule are present. It is a protein complex composed of four peptide chains — two identical heavy chains and two identical light chains arranged in a Y-shape typical of antibody monomers. Each IgG has two antigen binding sites. Representing approximately 75% of serum immunoglobulins in humans, IgG is the most abundant antibody isotype found in the circulation. IgG molecules are synthesized and secreted by plasma B cells. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition. |
| <b>Synonyms:</b>     | goat anti-human IgG, Anti-Human Ab, Human Secondary Antibody, Goat Anti-Human, Human Antibody in Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Host Species:</b> | Goat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Specificity:</b>  | IgG (H&L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### Target Details

|                    |                          |
|--------------------|--------------------------|
| <b>Reactivity:</b> | Human                    |
| <b>Immunogen:</b>  | Human IgG whole molecule |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity/Specificity:</b> | Anti-HUMAN IgG (H&L) (GOAT) antibody is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, Human IgG and Human Serum. |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                        |                                                                                |
|------------------------|--------------------------------------------------------------------------------|
| <b>Relevant Links:</b> | <ul style="list-style-type: none"><li>• <a href="#">209-1102 SDS</a></li></ul> |
|------------------------|--------------------------------------------------------------------------------|

## Application Details

|                                |                                                                                                                                                                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suggested Applications:</b> | Microarray (Based on references)                                                                                                                                                                                                                       |
| <b>Application Note:</b>       | Suitable for immunoblotting (western or dot blot), ELISA, immunoelectron microscopy and immunohistochemistry as well as other antibody based enzymatic assays requiring lot-to-lot consistency. Specific conditions should be optimized by researcher. |
| <b>Assay Dilutions:</b>        | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                        |
| <b>ELISA:</b>                  | 1:20,000 - 1:100,000                                                                                                                                                                                                                                   |
| <b>IHC:</b>                    | 1:1,000 - 1:5,000                                                                                                                                                                                                                                      |
| <b>WB:</b>                     | 1:2,000 - 1:10,000                                                                                                                                                                                                                                     |

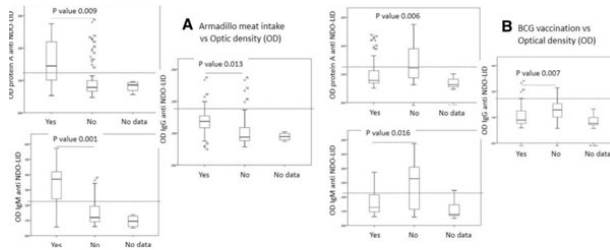
## Formulation

|                               |                                                            |
|-------------------------------|------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                |
| <b>Concentration:</b>         | 10 mg/mL by UV absorbance at 280 nm                        |
| <b>Buffer:</b>                | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| <b>Reconstitution Volume:</b> | 5.0 mL                                                     |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent)               |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Ambient                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage Condition:</b>  | Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                           |

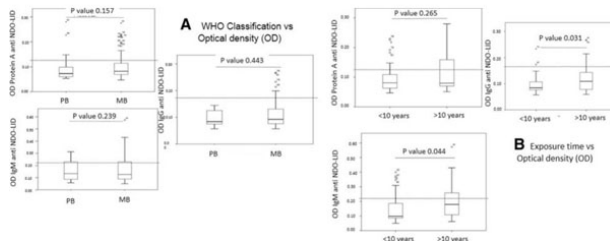
## Images



### ELISA

ELISA results using Goat Anti-Human IgG.

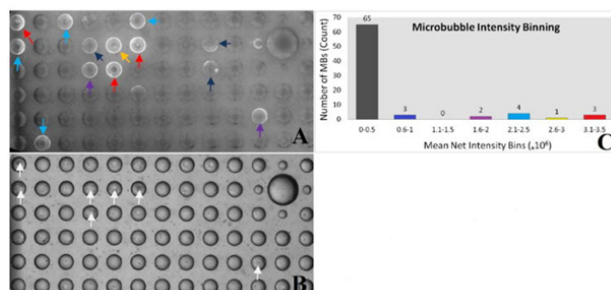
Impact of behavioral variables on *M. leprae* infection levels. Anti-natural octyl disaccharide-leprosy IDRI diagnostic (NDO-LID) antibody levels in children and adolescents were measured by ELISA, using either protein A, anti- IgM or anti-IgG to detect responses. In a, samples were stratified by recorded knowledge of eating armadillo meat as either yes ( $n = 14$ ) or no ( $n = 64$ ). In b, samples were stratified by recorded knowledge of BCG re-vaccination following identification of the index leprosy case as either yes ( $n = 54$ ) or no ( $n = 16$ ). Data are displayed as box and whisker plots, with the box representing the Q1 to Q3 interquartile range and the horizontal bar representing the median of the optical density of the samples. Individual dots indicate outliers, and p-values are indicated by the lines above each indicated group. Fig. 2. PMID: 31196008.



### ELISA

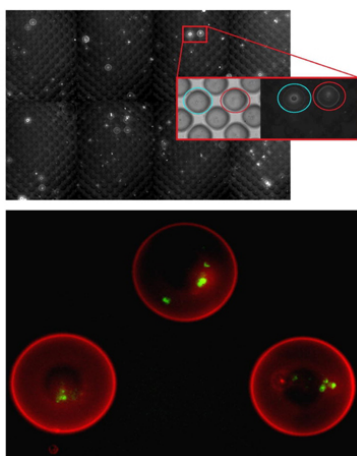
ELISA results using Goat Anti-Human IgG.

Influence of index case on *M. leprae* infection levels. Anti-natural octyl disaccharide-leprosy IDRI diagnostic (NDO-LID) antibody levels in children and adolescents were measured by ELISA, using either protein A, anti- IgM or anti-IgG to detect responses. In a, samples were stratified by reported WHO operational classification of the index case as either MB ( $n = 66$ ) or PB ( $n = 16$ ). In b, samples were stratified by estimated duration of exposure to the index leprosy case as either less than 10 years ( $n = 45$ ) or greater than 10 years ( $n = 37$ ). Data are displayed as box and whisker plots, with the box representing the Q1 to Q3 interquartile range and the horizontal bar representing the median of the optical density of the samples. Individual dots indicate outliers, and p-values are indicated by the lines above each indicated group. Fig. 3. PMID: 31196008.



### ELISA

Ring development signifying tetanus toxoid specific IgG secretion from MBs of interest. A) Fluorescent image, B) Corresponding bright-field image white arrows represent wells containing >8 cells, C) Binned fluorescence intensity of MB's in field of view, bin colors correspond to arrow colors in (A). Fig 3. PMID: 25079889



### ELISA

Top (Fig 6.): Stitched scan of MB array containing approximately 900 MBs. Cells were seeded and the MB array was imaged following 2 days of incubation. MB with fluorescent rings around them are considered positive wells.

Bottom (Fig 7.): Representative image from area on a MB array seeded with primary B cells showing MB's positive for live cells (Green) which are additionally secreting IgG (Red). PMID: 25079889

## References

- Serrano-Coll, H et al. Social and environmental conditions related to Mycobacterium leprae infection in children and adolescents from three leprosy endemic regions of Colombia. *Bmc Infectious Diseases* (2019)
- Metz I, Beißbarth T, Ellenberger D, et al. Serum peptide reactivities may distinguish neuromyelitis optica subgroups and multiple sclerosis. *Neurol Neuroimmunol Neuroinflamm.* (2016)
- Bucukovski, J et al. A Multiplex Label-Free Approach to Avian Influenza Surveillance and Serology. *PLoS One* (2015)
- Bobo, B et al. Microbubble array diffusion assay for the detection of cell secreted factors. *Lab on a Chip* (2014)

## Disclaimer

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