

**Datasheet for 001-0102-0010****Bovine IgG****Overview**

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Description:</b>  | Bovine IgG Whole Molecule - 001-0102-0010 |
| <b>Item No.:</b>     | 001-0102-0010                             |
| <b>Size:</b>         | 10 mg                                     |
| <b>Applications:</b> | SDS-PAGE, Other                           |
| <b>Origin:</b>       | Bovine                                    |

**Product Details**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>        | Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. Immunoglobulin G binds to viruses, bacteria, as well as fungi and facilitates their destruction or neutralization via agglutination (and thereby immobilizing them), activation of the complement cascade, and opsonization for phagocytosis. The whole IgG molecule possesses both the F(c) region, recognized by high-affinity Fc receptor proteins, as well as the F(ab) region possessing the epitope-recognition site. Both heavy and light chains of the antibody molecule are present. |
| <b>Synonyms:</b>          | Bovine Immunoglobulin G; cow IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species of Origin:</b> | Bovine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Format:</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Type:</b>              | Native Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**Target Details**

|                            |                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Purity/Specificity:</b> | Bovine IgG whole molecule was prepared from normal serum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Bovine IgG whole molecule was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Bovine Serum and anti-Bovine IgG. |
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**Application Details**

|                                |                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b>    | SDS-PAGE                                                                                                                                              |
| <b>Suggested Applications:</b> | Other (Based on references)                                                                                                                           |
| <b>Application Note:</b>       | Bovine IgG whole molecule has been tested in SDS-Page and can be utilized as a control or standard reagent in Western Blotting and ELISA experiments. |
| <b>Assay Dilutions:</b>        | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                       |
| <b>ELISA:</b>                  | User Optimized                                                                                                                                        |
| <b>IHC:</b>                    | User Optimized                                                                                                                                        |
| <b>WB:</b>                     | User Optimized                                                                                                                                        |

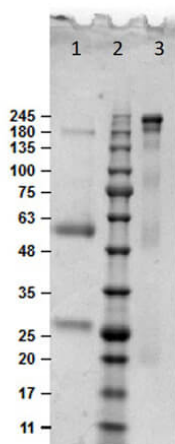
## Formulation

|                               |                                                            |
|-------------------------------|------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                |
| <b>Concentration:</b>         | 10.0 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>Preservative:</b>          | 0.01% (w/v) Sodium Azide                                   |
| <b>Stabilizer:</b>            | None                                                       |
| <b>Reconstitution Volume:</b> | 1.0 mL                                                     |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent)               |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                                                                                                              |
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| <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. Bovine IgG whole molecule 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



#### SDS-PAGE

SDS PAGE Results of Bovine IgG Whole Molecule. Lane 1: Bovine IgG Reduced. Lane 2: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 3: Bovine IgG Non-Reduced. 4-20% Gel, Coomassie Stained.

## References

- Ong LC et al. Bacterial imaging with photostable upconversion fluorescent nanoparticles. *Biomaterials*. (2014)

## Disclaimer

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