

# Technical Datasheet

**Analysis Name:** Beta-Lactoglobulin by ELISA RIDASCREEN

**Method Number:** LI-08.084

**Scope of Application:** Products containing milk, whey and casein hydrolysates, and for detection of milk and whey protein contaminations in infant cereals, and similar products, soya-based infant formulas

**Description:** The determination of  $\beta$ -lactoglobulin antigenicity is made using an indirect competitive ELISA. Samples are dissolved in water or in buffer and diluted with the buffer. The immunoassay is performed in plastic microwells, which have been precoated with the antigen BLG. In the initial competition reaction, the diluted sample or standard solutions are added in duplicate into the microwells along with a fixed volume of a specific rabbit anti-BLG antibody solution. With increased concentrations of BLG and antigenic BLG-fragments in the sample, the amount of anti-BLG antibodies binding to BLG attached to the well will decrease. After washing, the amount of bound antibodies is determined by reaction with the conjugate (anti-rabbit peroxidase conjugated secondary antibody) (4). Unbound conjugate is removed by washing and peroxidase activity is determined by addition of an enzyme substrate (urea peroxide) which develops a blue color in presence of a chromogen (TMB). Addition of the stop solution causes a color change from blue to yellow. The color development is inversely proportional to the original BLG concentration in the standard solution and inversely proportional to the original BLG antigenicity (reactivity) of the sample solution. Semi-quantitation is performed by comparing absorbances at 450 nm of sample solutions with the calibration curve.

**Sample Weight Required:** Solids = 50 g, Liquids = 50 mL

**Analytical Platform:** Microplate Reader



NQAC

Nestlé Quality Assurance Center  
Dublin

**Special information:** Original container required.

Requires LI-00.556 Total Nitrogen/Protein- Kjeldahl Method for \_M variation or LI-50.011 Moisture and Total Solids for \_S variation.

Kit used, r-Biopharm RIDASCREEN® B-Lactoglobulin R4901, has identified cross reactivity to sheep's, buffalo's and goat's milk.

| Analyte Reported      | Alias       | Unit of Measure | Limit of Quantification | Reproducibility |
|-----------------------|-------------|-----------------|-------------------------|-----------------|
| β-Lactoglobulin (BLG) | LI-08.084_M | mg/g protein    | CALC                    | 10%             |
| β-Lactoglobulin (BLG) | LI-08.084_S | mg/kg           | 10                      | 10%             |