KENDRICK LABORATORIES, INC
2D Electrophoresis & Custom Protein Analysis
kendricklabs.com
2d@kendricklabs.com

1202 Ann St
Madison, WI 53713
Tel: 800-462-3417. 608-258-1565
Fax: 608-258-1569

June 16, 2026

Client
Example Company
100 Main St
Anytown, USA 19840

Dear Client:

The quantification results for casein and whey proteins in your sample received on 6/11/26 are summarized below. Table 1 presents the percentage of casein protein by sample weight, while Table 2 shows the percentage of whey protein. Detailed methods are provided on the following page. The original gels have been retained in our records.

Percent Casein determination

Sample	Measurements	Average	± SD	g whey /100g
Sample 1	31.45, 30.64, 31.48, 32.95, 31.37, 30.34, 30.45, 30.02	31.09	0.94	31.09g/100g

Table 1. Percentage of casein protein by sample weight. The sample was weighed, diluted, subjected to electrophoresis in quadruplicate, and on two gels for a total of eight measurements. Four concentrations of casein standard were run for generation of the standard curve (SS p.100). The grams of casein per 100g is also listed.

Percent Whey determination (non-protein nitrogen removed)

Sample	Measurements	Average	± SD	g whey /100g
Sample 1	8.92, 8.89, 9.19, 9.61, 9.76, 9.47, 9.57, 9.70	9.39	0.34	9.39g/100g

Table 2. Percentage of whey protein by sample weight. The sample was weighed, diluted, subjected to electrophoresis in quadruplicate, and on two gels for a total of eight measurements. Four concentrations of whey standard were run for generation of the standard curve (SS p.100). The grams of whey per 100g is also listed.

If you have any questions, feel free to give me a call (608) 258-1565.

Sincerely,

Sally Scientist
Biochemist

Methods
Casein (Catalog No. C-5890, Lot 0000460234) and whey (Catalog No. W-1500, Lot SLBW1268) standard proteins were obtained from Sigma Chemical Co. (St. Louis, MO, USA). Both standards comprise mixtures of polypeptides, with protein concentrations previously determined via nitrogen (N_2) analysis. Standards were solubilized in sodium dodecyl sulfate (SDS) buffer at appropriate concentrations for electrophoretic analysis.

The sample was weighed and diluted in a buffer containing 5.0% SDS, 10% glycerol, 50 mM dithiothreitol (DTT), and 63 mM Tris-HCl (pH 6.8). Sample was heated in a boiling water bath for 5 minutes to ensure complete protein denaturation.

SDS slab gel electrophoresis was performed following the method of Laemmli (Nature 227:680–685, 1970), as modified by Burgess-Cassler et al. (Clin. Chem. 35:2297–2304, 1989). Separation was conducted using 12% acrylamide resolving gels (125 mm × 150 mm × 0.75 mm) overlaid with a 25 mm stacking gel. Electrophoresis was carried out at a constant current of 15 mA per gel for approximately 3.5 hours, until the bromophenol blue tracking dye reached the gel terminus. Gels were stained with Coomassie Brilliant Blue and destained in 10% acetic acid to achieve a clear background.

Stained gels were digitized using a calibrated GE Healthcare Image Scanner III across the appropriate optical density range. Standard curves for casein and whey were generated, and protein concentrations in the unknown sample were quantified using Phoretix 1D software (version 11.2) on a Windows 10-compatible system.