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## LIST OF ABBREVIATION

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|----------------------|---|--|
| <b>A.O.A.C</b>       | : | Association of Official Analytical Collaboration |
| <b>AA</b>            | : | Ascorbic acid                                    |
| <b>ACSM</b>          | : | American College of Sports Medicine              |
| <b>ADA</b>           | : | American Dietetic Association                    |
| <b>AIS</b>           | : | Australian Institute of Sport                    |
| <b>AMDR</b>          | : | Acceptable Macronutrient Distribution Ranges     |
| <b>ANOVA</b>         | : | Analysis of Variance                             |
| <b>AOD</b>           | : | Absence of Defects                               |
| <b>APV</b>           | : | Adequate Precision Value                         |
| <b>ASLS</b>          | : | Accelerated Shelf-Life Study                     |
| <b>ASLT</b>          | : | Accelerated Shelf-Life Testing                   |
| <b>ATP</b>           | : | Adenosine Triphosphate                           |
| <b>a<sub>w</sub></b> | : | Water Activity                                   |
| <b>BBD</b>           | : | Box–Behnken Design                               |
| <b>BCAA</b>          | : | Branched Chain Amino Acids                       |
| <b>Bd wt</b>         | : | Body Weight                                      |
| <b>BV</b>            | : | Biological Value                                 |
| <b>BW</b>            | : | Body Weight                                      |
| <b>CAGR</b>          | : | Compound Annual Growth Rate                      |
| <b>CCD</b>           | : | Central Composite Design                         |
| <b>CCRD</b>          | : | Central Composite Rotatable Design               |
| <b>CFU</b>           | : | Colony Forming Units                             |
| <b>CHO</b>           | : | Carbohydrates                                    |
| <b>CLA</b>           | : | Conjugated linoleic acids                        |
| <b>C<sub>p</sub></b> | : | Center points in the design                      |
| <b>CSC</b>           | : | Composite Score Card                             |
| <b>DD</b>            | : | Doehlert Design                                  |
| <b>DOE</b>           | : | Design of Experiments                            |
| <b>DRI</b>           | : | Dietary Reference Intakes                        |
| <b>DSCB</b>          | : | Defatted Soyabean Cereal Bar                     |

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|-------------------------------------|---|--|
| <b>EAA</b> s                        | : | Essential Amino Acids                        |
| <b>EFP</b>                          | : | Emergency Food Products                      |
| <b>FD</b>                           | : | Factorial Design                             |
| <b>FDA</b>                          | : | Food and Drug Administration                 |
| <b>FFA</b>                          | : | Free Fatty Acids                             |
| <b>FFD</b>                          | : | Full Factorial Design                        |
| <b>FFSF</b>                         | : | Full-Fat Soya Flour                          |
| <b>FMP</b>                          | : | Full Cream Milk Powder                       |
| <b>FRIM</b>                         | : | Fiber-Rich Ingredient Mixture                |
| <b>FSSAI</b>                        | : | Food Safety and Standards Authority of India |
| <b>g</b>                            | : | Gram/s                                       |
| <b>g/h</b>                          | : | Gram Per Hour                                |
| <b>g/kg/d</b>                       | : | Gram/kilogram body weight/day                |
| <b>GHRP</b>                         | : | Growth hormone releasing peptides            |
| <b>H<sub>0</sub></b>                | : | Null Hypothesis                              |
| <b>H<sub>1</sub></b>                | : | Alternative Hypothesis                       |
| <b>HCB</b>                          | : | High Energy Cereal Bars                      |
| <b>HDL</b>                          | : | High Density Lipoprotein                     |
| <b>HMB</b>                          | : | Hydroxy β-methylbutyrate                     |
| <b>HMB</b>                          | : | β-hydroxy β-methylbutyrate                   |
| <b>HTST</b>                         | : | High Temperature, Short Time                 |
| <b>HWP</b>                          | : | Hydrolyzed Whey Protein                      |
| <b>IDI</b>                          | : | In-depth Interviews                          |
| <b>IFCT</b>                         | : | Indian Food Composition Tables               |
| <b>ILSI</b>                         | : | International Life Sciences Institute        |
| <b>INR</b>                          | : | Indian Rupee                                 |
| <b>IOC</b>                          | : | International Olympics Committee             |
| <b>ISP</b>                          | : | Isolated Soy Protein                         |
| <b>ISSN</b>                         | : | International Society of Sports Nutrition    |
| <b><i>k</i></b>                     | : | Number of Factors                            |
| <b>K</b>                            | : | Thousand                                     |
| <b>Kcal</b>                         | : | Kilo Calories                                |
| <b>Kg</b>                           | : | Kilogram                                     |
| <b>KH<sub>2</sub>PO<sub>4</sub></b> | : | Potassium Dihydrogen Phosphate               |

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|---|---|--|
| <b>KJ</b>   | : | Kilo Joules                                      |
| <b>LDL</b>  | : | Low Density Lipoprotein                          |
| <b>LDPE</b>                                       | : | low-density polyethylene                         |
| <b>MEq</b>  | : | Milliequivalent                                  |
| <b>MGP</b>  | : | Multigrain premix                                |
| <b>min</b>  | : | Minute/s   |
| <b>Mm</b>   | : | Millimetres                                      |
| <b>MP</b>   | : | Metallized Polyester                             |
| <b>MP</b>   | : | Milk Protein                                     |
| <b>MPa</b>  | : | Megapascal                                       |
| <b>MPC</b>  | : | Milk Protein Concentrate                         |
| <b>MPI</b>  | : | Milk Protein Isolate                             |
| <b>MPS</b>  | : | Muscle Protein Synthesis                         |
| <b>N (Unit)</b>                                   | : | Newtons  |
| <b>Na<sub>2</sub>HPO<sub>4</sub></b>              | : | Sodium Hydrogen Phosphate                        |
| <b>(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub></b> | : | Ammonium Sulphate                                |
| <b>NaCl</b>                                       | : | Sodium Chloride                                  |
| <b>NaCN</b>                                       | : | Sodium Cyanide                                   |
| <b>NIN</b>  | : | National Institute of Nutrition                  |
| <b>NPU</b>  | : | Net protein utilization                          |
| <b>OAA</b>  | : | Overall acceptability                            |
| <b>OKG</b>  | : | Ornithine- $\alpha$ -ketoglutarate               |
| <b>OTG</b>  | : | Oven Toaster Grill                               |
| <b>PBAS</b>                                       | : | Protein Bars with Soy flour                      |
| <b>PBAW</b>                                       | : | Protein Bars with Whey                           |
| <b>PDCAAS</b>                                     | : | Protein Digestibility-Corrected Amino Acid Score |
| <b>P-E-B</b>                                      | : | Protein-Energy Bars                              |
| <b>P-E-Bars</b>                                   | : | Protein-Energy Bars                              |
| <b>PER</b>  | : | Protein Efficiency Ratio                         |
| <b>PFP</b>  | : | Paper-Aluminum Foil-Polyethylene                 |
| <b>PP</b>   | : | Polypropylene                                    |
| <b>PPI</b>  | : | Pea Protein Isolate                              |
| <b>PRIM</b>                                       | : | Protein-Rich Ingredient Mixture                  |
| <b>PSCB</b>                                       | : | Processed Soyabean Cereal Bar                    |

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|-------------------------------|---|---|
| <b>PV</b>                     | : | Peroxide Value                            |
| <b>QDA</b>                    | : | Quantitative Descriptive Sensory Analysis |
| <b>R<sup>2</sup></b>          | : | Coefficients of determination             |
| <b>RDA</b>                    | : | Recommended Dietary Allowance             |
| <b>RH</b>                     | : | Relative Humidity                         |
| <b>RSM</b>                    | : | Response Surface Methodology              |
| <b>SAG</b>                    | : | Sports Authority of Gujarat               |
| <b>SAI</b>                    | : | Sports Authority of India                 |
| <b>SD</b>                     | : | Standard Deviation                        |
| <b>SF</b>                     | : | Sports Foods                              |
| <b>SPI</b>                    | : | Soy Protein Isolate                       |
| <b>TA</b>                     | : | Titrateable acidity                       |
| <b>TBA</b>                    | : | Thiobarbituric Acid                       |
| <b>TBC</b>                    | : | Total Bacterial Count                     |
| <b>TM</b>                     | : | Trademark                                 |
| <b>TPA</b>                    | : | Texture Profile Analysis                  |
| <b>TSE</b>                    | : | Twin Screw Extruder                       |
| <b>UK</b>                     | : | United Kingdom                            |
| <b>USA/US</b>                 | : | United States of America                  |
| <b>USD</b>                    | : | United States Dollar/s                    |
| <b>WPC</b>                    | : | Whey Protein Concentrate                  |
| <b>WPC-70</b>                 | : | Whey Protein Concentrate-70               |
| <b>WPC-80</b>                 | : | Whey Protein Concentrate-80               |
| <b>WPH</b>                    | : | Whey Protein Hydrolysate                  |
| <b>WPI</b>                    | : | Whey Protein Isolate                      |
| <b>ZMA</b>                    | : | Zinc/magnesium aspartate                  |
| <b><math>\alpha</math>-KG</b> | : | $\alpha$ -ketoglutarate                   |
| <b>°C</b>                     | : | Degree Celsius                            |
| <b>3D</b>                     | : | Three Dimensional                         |
| <b>9-PHS</b>                  | : | 9-Point Hedonic Scale                     |