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Comparative proteomics analysis of human and ruminant milk serum reveals variation in protection and nutrition

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1 Comparative proteomics analysis of human and ruminant milk serum reveals
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20 **Abstract**

21 In present study, 198,169, 213 and 128 proteins were identified and
22 quantified in human, cow, goat and yak milk serum respectively by using
23 proteomics techniques. Large variations were observed between human and
24 ruminant milk proteins. Human milk contained higher concentration of mucosal
25 immune response, complement proteins and regulators. The concentration of
26 bactericidal proteins were relatively higher in ruminants milk. Human milk
27 exclusively expressed proteins important for delivery or utilization of nutrients.
28 Peptidase inhibitors prevent the bioactive proteins/peptides in human milk from
29 gastral-intestinal digestion. Protein composition among ruminants milk was
30 similar but with variations. Goat milk contained high level of complement

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