**Table S1: Milk specimens codes:**

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| **Samples names** | **Animals names/ breeds** | **Samples codes** | **Geographical source** |
| - Cow milk from different sources. | Baladi cattleHolstein Friesian*Bos taurus* | CM1, CM2, CM3, CM4, CM5, CM6, CM7, CM8 | Elwahat Albahareya, Giza, Egypt |
| - Buffalo milk from different sources. | River buffalo*Bubalus bubalis* | BM1, BM2, BM3, BM4, BM5, BM6, BM7, BM8 |
| - Camel milk from different sources. | Arabian camel*Camelus dromedarius* | LM1, LM2, LM3, LM4, LM5, LM6, LM7, LM8 |
| - Goat milk from different sources. | Zaraibi goat*Capra aegagrus hircus* | GM1, GM2, GM3, GM4, GM5, GM6, GM7, GM8 |