**Eukaryotic Cell vs. Prokaryotic Cell**

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|  | **Eukaryotic Cell** | **Prokaryotic Cell** |
| **Nucleus** | **‘True’ membrane-bound nucleus** | **No true nucleus** |
| **Number of Chromosomes** | **Multiple depends on organism** | **Circular DNA (plasmid)** |
| **Cell Type** | **multicellular** | **Unicellular** |
| **Example** | **Plant or animal cells** | **Bacteria, viruses, archaea** |
| **Lysosomes and peroxisomes** | **present** | **absent** |
| **Microtubules** | **Present** | **Absent** |
| **Endoplasmic Reticulum** | **Present** | **absent** |
| **Mitochondria** | **Present** | **absent** |
| **Ribosomes** | **Larger** | **smaller** |
| **Vesicles** | **Present** | **present** |
| **Golgi apparatus (body)** | **Present** | **absent** |
| **Flagella**  **(tail)** | **thicker** | **thinner** |
| **Permeability of Nuclear Membrane** | **Selective** | **Not present** |
| **Cell Wall** | **Only in plant cells and fungi** | **Usually more complex** |
| **Vacuoles** | **Present** | **present** |
| **Cell Size** | **10-100 um** | **1-10 um** |