**Figure S1:** Schematic representation of ANN-GA for achieving the global optimum value for the maximization of xylitol concentration from *Y. lipolytica*.



**Table S1**: Statistical measures and performance of the ANN model for training, testing, validation and all data.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sets** | **MSE** | **R2** |
| Training | 70% | 1.309 | 0.9457 |
| Validation | 15% | 12.605 | 0.9842 |
| Test | 15% | 26.709 | 0.9768 |
| Overall |  | 7.425 | 0.93887 |