|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Percent dry mass (in iAQY970) | Composition (in iAQY970) - % | Percent dry mass (in iGD1575) | Composition (in iGD1575) - % |
| DNA | 3.8 | Guanine -31 | 2.8 | Guanine -31.05 |
|  |  | Cytosine -31 |  | Cytosine -31.05 |
|  |  | Adenine -19 |  | Adenine -18.95 |
|  |  | Thymine -19 |  | Thymine -18.95 |
| RNA | 8.6 | Guanine -28 | 7.1 | Guanine -28.09 |
|  |  | Cytosine -28 |  | Cytosine -28.09 |
|  |  | Adenine -22 |  | Adenine -21.91 |
|  |  | Uracil -22 |  | Uracil -21.91 |
| Protein | 58.8 | Lysine - 3.20 | 49.3 | Lysine - 3.20 |
|  |  | Alanine - 12.01 |  | Alanine - 12.01 |
|  |  | Leucine -10.19 |  | Leucine -10.19 |
|  |  | Phenylalanine - 3.94 |  | Phenylalanine - 3.94 |
|  |  | Arginine -7.33 |  | Arginine -7.33 |
|  |  | Glutamine - 2.90 |  | Glutamine - 2.90 |
|  |  | Glycine - 8.46 |  | Glycine - 8.46 |
|  |  | Methionine - 2.44 |  | Methionine - 2.44 |
|  |  | Valine - 7.58 |  | Valine - 7.58 |
|  |  | Proline - 5.03 |  | Proline - 5.03 |
|  |  | Tyrosine - 2.29 |  | Tyrosine - 2.29 |
|  |  | Aspartate - 5.31 |  | Aspartate - 5.31 |
|  |  | Glutamate - 5.84 |  | Glutamate - 5.84 |
|  |  | Histidine - 2.11 |  | Histidine - 2.11 |
|  |  | Threonine - 5.15 |  | Threonine - 5.15 |
|  |  | Cysteine - 0.93 |  | Cysteine - 0.93 |
|  |  | Isoleucine - 5.48 |  | Isoleucine - 5.48 |
|  |  | Tryptophan - 1.38 |  | Tryptophan - 1.38 |
|  |  | Asparagine - 2.64 |  | Asparagine - 2.64 |
|  |  | Serine - 5.80 |  | Serine - 5.80 |
| Phosphatidylethanolamine | 3.9 | / | / | / |
| PHB | 24.3 | / | 17.6 | / |
| Glycogen | 0.5 | / | 0.4 | / |
| Putrescine | 0.1 | / | Trace | / |
| Lipid | / | / | 12.8 | / |
| LPS | / | / | 3 | / |
| Cell wall | / | / | 2 | / |
| LMW Succinoglycan | / | / | 4 | / |
| HMW Succinoglycan | / | / | 1 | / |

Table 1.Biomass composition of free-living state used in iAQY970 and iGD1575

Table 2.Biomass composition of symbiotic and free-living states

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Percent dry mass (free-living state) | Composition (free-living state) - % | Percent dry mass (symbiotic state) | Composition (symbiotic state) - % |
| DNA | 3.8 | Guanine -31 | 12.82 | Guanine -0 |
|  |  | Cytosine -31 |  | Cytosine -0 |
|  |  | Adenine -19 |  | Adenine -12.82 |
|  |  | Thymine -19 |  | Thymine -0 |
| RNA | 8.6 | Guanine -28 | 10.65 | Guanine -0 |
|  |  | Cytosine -28 |  | Cytosine -0 |
|  |  | Adenine -22 |  | Adenine -0 |
|  |  | Uracil -22 |  | Uracil -10.65 |
| Protein | 58.8 | Lysine - 3.20 | 41.07 | Lysine - 0 |
|  |  | Alanine - 12.01 |  | Alanine - 0 |
|  |  | Leucine -10.19 |  | Leucine - 0 |
|  |  | Phenylalanine - 3.94 |  | Phenylalanine - 0 |
|  |  | Arginine -7.33 |  | Arginine -17.05 |
|  |  | Glutamine - 2.90 |  | Glutamine - 0 |
|  |  | Glycine - 8.46 |  | Glycine - 0 |
|  |  | Methionine - 2.44 |  | Methionine - 0 |
|  |  | Valine - 7.58 |  | Valine - 11.13 |
|  |  | Proline - 5.03 |  | Proline - 0 |
|  |  | Tyrosine - 2.29 |  | Tyrosine - 0 |
|  |  | Aspartate - 5.31 |  | Aspartate - 0 |
|  |  | Glutamate - 5.84 |  | Glutamate - 0 |
|  |  | Histidine - 2.11 |  | Histidine - 0 |
|  |  | Threonine - 5.15 |  | Threonine - 0 |
|  |  | Cysteine - 0.93 |  | Cysteine - 0 |
|  |  | Isoleucine - 5.48 |  | Isoleucine - 12.44 |
|  |  | Tryptophan - 1.38 |  | Tryptophan - 0 |
|  |  | Asparagine - 2.64 |  | Asparagine - 0 |
|  |  | Serine - 5.80 |  | Serine - 0 |
| Phosphatidylethanolamine | 3.9 | / | / | / |
| PHB | 24.3 | / | 8.31 | / |
| Glycogen | 0.5 | / |  | / |
| Putrescine | 0.1 | / |  | / |
| Symbiotic Cofactors | / | / | 4.84 | / |
| Hexadecanoate | / | / | 23.21 | / |

\*The biomass used for symbiotic state was extracted from iCC541.