

TABLE AII

The molecular weight of the enzyme, the number of subunits, and the molecular weight of each subunit is given units of molecular weight (MW) are in  $K^{Da}$

| Enzyme                  | <i>E. coli</i>       |                        | Yeast              |                          | <i>D. discoideum</i> |          |
|-------------------------|----------------------|------------------------|--------------------|--------------------------|----------------------|----------|
|                         | MW                   | SU-MW                  | MW                 | SU-MW                    | MW                   | SU-MW    |
| Glycogen synthetase     | 93 (1)<br>200 (1)    | 2-50 (1)<br>4-50 (1)   | 300 (2)            | 4-71 (2)                 | —                    | —        |
| Glycogen phosphorylase  | —                    | —                      | 250 (6)<br>390 (6) | 2-103 (6)<br>4-103 (6)   | 210 (7)              | 2-95 (7) |
| UDPG pyrophosphorylase  | 210 (10)‡            | 4-50 (10)‡             | —                  | —                        | 200 (148)            | —        |
| Glucokinase             | —                    | —                      | 96 (15)            | 2-50 (15)                | —                    | —        |
| Hexokinase              | —                    | —                      | 104 (149)          | 2-52 (149)               | —                    | —        |
| Phosphoglucomutase      | 62-65 (20)           | —                      | 65 (21)            | 2-32 (151)               | —                    | —        |
| Phosphoglucoisomerase   | —                    | —                      | 119 (152)          | 4-30 (152)               | —                    | —        |
| Phosphofructokinase     | 140 (29)<br>148 (29) | 4-35 (29)<br>4-37 (29) | 835 (30)           | 4-118 (30)<br>4-112 (30) | —                    | —        |
| Aldolase                | —                    | —                      | 80 (157)           | 2-40 (157)               | —                    | —        |
| Triose P isomerase      | —                    | —                      | 53-56 (38)         | 2-26 (38)                | —                    | —        |
| GA3P dehydrogenase      | 144 (41)             | —                      | 142 (42)           | 4-35 (42)                | —                    | —        |
| 3PGA kinase             | 44 (44)              | 1-44 (44)              | 46 (48)            | 1-46 (48)                | —                    | —        |
| PGA mutase              | 56 (44)              | —                      | 112 (49)           | 4-27 (49)                | —                    | —        |
| Enolase                 | 90 (50)              | 2-45 (50)              | 88 (160)           | 2-44 (160)               | —                    | —        |
| Pyruvate kinase         | 240 (53)<br>190 (54) | 4-60 (53)<br>4-51 (54) | 210 (54)           | 4-50 (54)                | —                    | —        |
| Lactate dehydrogenase   | 74 (57)              | 1-74 (57)              | —                  | —                        | —                    | —        |
| Fl,6-bisphosphatase     | —                    | —                      | 130 (58)           | 4-35 (58)                | —                    | —        |
| G6P dehydrogenase       | —                    | —                      | 128 (163)          | 4-N.G. (164)             | —                    | —        |
| 6PG dehydrogenase       | 100 (68)             | 2-50 (58)              | 100 (69)           | 2-50 (69)                | —                    | —        |
| R5P isomerase           | —                    | —                      | 105 (165)          | 4-N.G. (165)             | —                    | —        |
| Ru5P 3-Epimerase        | —                    | —                      | 46 (73)            | —                        | —                    | —        |
| Transketolase           | —                    | —                      | 159 (76)           | 2-79 (76)                | —                    | —        |
| Transaldolase           | —                    | —                      | 68 (78)<br>65 (78) | 2-34 (78)<br>2-32 (78)   | —                    | —        |
| Ru1,5BisP carboxylase   | N.A.                 | —                      | N.A.               | —                        | N.A.                 | —        |
| GallP uridytransferase  | 80 (81)              | 2-41 (81)              | 86 (82)            | 2-38 (82)                | —                    | —        |
| Galactokinase           | —                    | —                      | 58 (83)            | 1-58 (83)                | —                    | —        |
| Ala transaminase        | —                    | —                      | —                  | —                        | —                    | —        |
| Asp transaminase        | 84 (166)             | 2-43 (167)             | 90 (168)           | 2-45 (167)               | —                    | —        |
| Tyr transaminase        | —                    | —                      | —                  | —                        | —                    | —        |
| Glu dehydrogenase (NAD) | —                    | —                      | 350 (170)          | —                        | —                    | —        |
| (NADP)                  | 250 (89)             | NG-40§ (89)            | —                  | —                        | —                    | —        |
| Gln synthetase          | 600 (91)             | 12-50 (91)             | —                  | —                        | —                    | —        |
| Arginase                | —                    | —                      | —                  | —                        | —                    | —        |
| Glu decarboxylase       | 310 (95)             | 6-50 (95)              | —                  | —                        | —                    | —        |
| Ser dehydrase           | 37 (96)              | —                      | —                  | —                        | —                    | —        |
| GSSG reductase          | 105 (98)             | 2-50 (98)              | 118 (99)           | —                        | —                    | —        |
| Ornithine decarboxylase | 160 (102)            | 2-81 (102)             | 86 (103)           | 2-NG (103)               | —                    | —        |
| Arg decarboxylase       | 300 (105)            | 4-74 (105)             | —                  | —                        | —                    | —        |
| DAP decarboxylase       | 200 (106)            | —                      | —                  | —                        | —                    | —        |
| DHPA reductase          | 110 (107)            | —                      | —                  | —                        | —                    | —        |



TABLE AII—continued

| Enzyme                | <i>E. coli</i> |                     | Yeast    |           | <i>D. discoideum</i> |       |
|-----------------------|----------------|---------------------|----------|-----------|----------------------|-------|
|                       | MW             | SU-MW               | MW       | SU-MW     | MW                   | SU-MW |
| Asp transcarbamoylase | 220 (108)      | 6 (172)             | —        | —         | —                    | —     |
| CarbamoylP synthetase | 163 (109)      | 1-130<br>1-42 (173) | —        | —         | —                    | —     |
| Aspartase             | 193 (111)      | 4-50 (111)          | —        | —         | —                    | —     |
| Lys decarboxylase     | 800 (112)      | 10-80 (112)         | —        | —         | —                    | —     |
| 3PGA dehydrogenase    | 163 (113)      | 4-40 (113)          | —        | —         | —                    | —     |
| UDPG 4-epimerase      | —              | —                   | 183 (82) | 2-78 (82) | —                    | —     |
| Glycerol kinase       | 220 (114)      | 4-55 (114)          | —        | —         | —                    | —     |
| Uridine phosphorylase | —              | —                   | —        | —         | —                    | —     |
| PEP carboxylase       | 402 (117)      | 4-100 (117)         | N.A.     | —         | N.A.                 | —     |
| Pyruvate carboxylase  | —              | —                   | —        | —         | —                    | —     |

  

| Enzyme                   | <i>E. coli</i> |                          | Yeast      |                      | <i>D. discoideum</i> |       |
|--------------------------|----------------|--------------------------|------------|----------------------|----------------------|-------|
|                          | MW             | SU-MW                    | MW         | SU-MW                | MW                   | SU-MW |
| PDC                      | 4600 (121)     | 24-96 (121)              | 8000 (176) | 40-45 (176)<br>40-35 | —                    | —     |
| Citrate synthase         | 280 (124)      | —                        | —          | —                    | 110 (126)            | —     |
| Isocitrate dehydrogenase | 95 (178)       | 2-53 (178)               | 300 (179)  | 8-40 (179)           | —                    | —     |
| SuccinylCoA synthetase   | 160 (181)      | 2-39 (181)<br>2-30 (181) | —          | —                    | —                    | —     |
| alpha-KGDC               | 2500 (182)     | 12-95 (182)              | —          | —                    | —                    | —     |
| Succinate dehydrogenase  | 100 (212)      | 1-65 (213)<br>1-25 (213) | —          | —                    | —                    | —     |
| Malate dehydrogenase     | 61 (140)       | 2-30 (140)               | —          | —                    | 70 (141)             | —     |
| Malic enzyme             | 200 (143)      | 4-54 (143)               | —          | —                    | —                    | —     |

† Rat muscle.

‡ ADPG pyrophosphorylase.

§ Subunits are inactive.

|| Porcine liver.

¶ Bovine heart.

†† dehydrogenase subunit only.

N.A. = Not applicable.

N.G. = Not given.