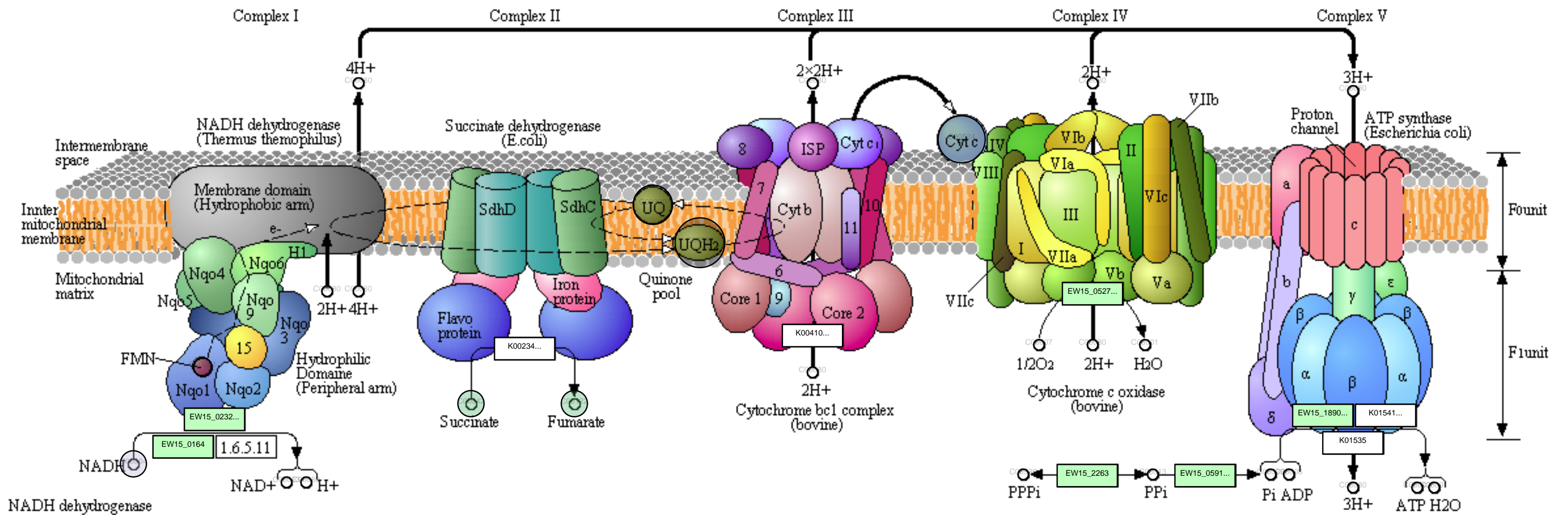


OXIDATIVE PHOSPHORYLATION



NADH dehydrogenase

|     |           |           |           |           |           |           |           |           |           |              |           |           |           |           |        |        |        |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|--------|--------|--------|
| E   | K03878    | K03879    | K03880    | K03881    | K03882    | K03883    | K03884    |           |           |              |           |           |           |           |        |        |        |
| E   | K03934    | K03935    | K03936    | K03937    | K03938    | K03939    | K03940    | K03941    | K03942    | K03943       | K03944    |           |           |           |        |        |        |
| B/A | K00330    | K00331... | K00332... | K00333... | K00334    | K00335    | K00336    | K00337    | K00338    | K00339       | K00340    | K00341... | K00342... | K00343    |        |        |        |
| B/A | EW15_0387 | EW15_0386 | EW15_0385 | EW15_0261 | EW15_0248 | EW15_0247 | EW15_0246 | EW15_0245 | EW15_0236 | EW15_0237... | EW15_0519 | K05583    | EW15_0232 | EW15_2077 | K05586 | K05587 | K05588 |
| E   | K03945    | K03946    | K03947    | K03948    | K03949    | K03950    | K03951    | K03952    | K03953    | K03954       | K03955    | K03956    | K11352    | K11353    |        |        |        |
| E   | K03957    | K03958    | K03959    | K03960    | K03961    | K03962    | K03963    | K03964    | K03965    | K03966       | K11351    | K03967    | K03968    |           |        |        |        |

Succinate dehydrogenase / Fumarate reductase

|     |        |           |        |        |        |        |  |  |  |  |  |  |  |  |  |  |  |
|-----|--------|-----------|--------|--------|--------|--------|--|--|--|--|--|--|--|--|--|--|--|
| E   | K00236 | K00237    | K00234 | K00235 |        |        |  |  |  |  |  |  |  |  |  |  |  |
| B/A | K00241 | K00242... | K00239 | K00240 |        |        |  |  |  |  |  |  |  |  |  |  |  |
|     |        |           | K00244 | K00245 | K00246 | K00247 |  |  |  |  |  |  |  |  |  |  |  |

Cytochrome c reductase

|       |           |           |           |        |        |        |        |        |        |        |  |  |  |  |  |  |  |
|-------|-----------|-----------|-----------|--------|--------|--------|--------|--------|--------|--------|--|--|--|--|--|--|--|
| E/B/A | K00411... | K00410... | K00410... |        |        |        |        |        |        |        |  |  |  |  |  |  |  |
| E     |           |           |           | K00414 | K00415 | K00416 | K00417 | K00418 | K00419 | K00420 |  |  |  |  |  |  |  |

Cytochrome c oxidase

|     |           |        |           |           |           |        |        |        |        |        |        |           |        |        |        |  |       |        |           |        |
|-----|-----------|--------|-----------|-----------|-----------|--------|--------|--------|--------|--------|--------|-----------|--------|--------|--------|--|-------|--------|-----------|--------|
| E   | K02257    |        | K02262    | K02256    | K02261    | K02263 | K02264 | K02265 | K02266 | K02267 | K02268 | K02269... | K02271 | K02272 | K02273 |  | E/B/A | K02258 | EW15_0530 | K02260 |
| B/A | EW15_0531 | K02300 | K02299    | K02298    | K02297    |        |        |        |        |        |        |           |        |        |        |  |       |        |           |        |
|     |           | K02277 | EW15_0527 | EW15_0528 | EW15_0529 |        |        |        |        |        |        |           |        |        |        |  |       |        |           |        |
|     |           | K02829 | K02828    | K02827    | K02826    |        |        |        |        |        |        |           |        |        |        |  |       |        |           |        |

Cytochrome c oxidase, cbb3-type

|   |           |           |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|-----------|-----------|--------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| B | K00404... | K00405... | K00407 | K00406 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|-----------|-----------|--------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Cytochrome bd complex

|     |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|--------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| B/A | K00425 | K00426 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|--------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

F-type ATPase (Bacteria)

|           |              |           |           |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|--------------|-----------|-----------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| EW15_1901 | EW15_1890    | EW15_1900 | EW15_1902 | EW15_1891 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EW15_1906 | EW15_1903... | EW15_1905 |           |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

F-type ATPase (Eukaryotes)

|           |        |           |        |        |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|--------|-----------|--------|--------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| K02132    | K02133 | K02136    | K02134 | K02135 |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K02137    | K02126 | K02127    | K02128 | K02138 | K02129... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K02130... | K02140 | K02131... | K02142 | K02143 | K02125    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

V/A-type ATPase (Bacteria, Archaeas)

|        |        |        |        |        |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|--------|--------|--------|--------|--------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| K02117 | K02118 | K02119 | K02120 | K02121 | K02122 | K02107 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K02123 | K02124 |        |        |        |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

V-type ATPase (Eukaryotes)

|        |           |        |        |        |        |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|-----------|--------|--------|--------|--------|--------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| K02145 | K02147    | K02148 | K02149 | K02150 | K02151 | K02152 | K02144 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K02154 | K02155... | K02146 | K02153 | K03662 |        |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |