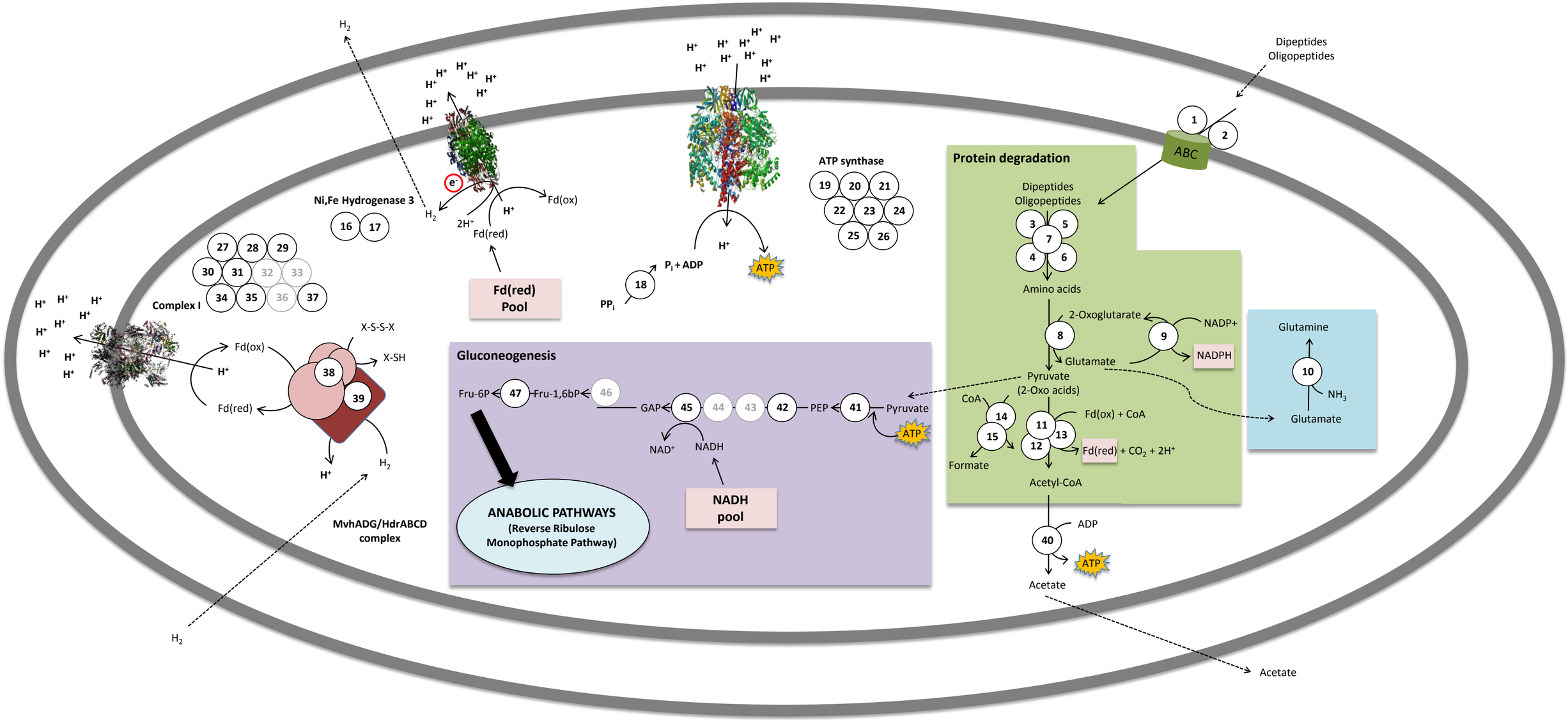
H2
Dipeptides
Oligopeptides
1
2
ABC
Ni,Fe Hydrogenase 3
16
17
e-
H2
2H+
H+
Fd(ox)
Fd(red)
Fd(red)
Pool
ATP synthase
19
20
21
22
23
24
25
26
18
PPi
Pi + ADP
ATP
Protein degradation
Dipeptides
Oligopeptides
3
5
7
4
6
Amino acids
2-Oxoglutarate
8
9
NADP+
NADPH
Glutamate
Pyruvate
(2-Oxo acids)
CoA
14
15
Formate
11
12
13
Fd(ox) + CoA
Fd(red) + CO2 + 2H+
Acetyl-CoA
40
ADP
ATP
Acetate
Glutamine
10
NH3
Glutamate
27
28
29
30
31
32
33
34
35
36
37
Complex I
X-S-S-X
X-SH
Fd(ox)
H+
Fd(red)
38
39
H+
H2
MvhADG/HdrABCD
complex
Gluconeogenesis
Fru-6P
47
Fru-1,6bP
46
GAP
45
44
43
42
PEP
41
Pyruvate
ATP
NAD+
NADH
NADH
pool
ANABOLIC PATHWAYS
(Reverse Ribulose
Monophosphate Pathway)
H2
Acetate

Figure S2.