

Tables:

Table 1. Reactions and updated constraints involving the ferredoxins.

Enzyme Name	Reaction	Lower Bound	Upper Bound
PFO: pyruvate ferredoxin oxidoreductase	$\text{CoA} + \text{Pyruvate} + \text{Fd}_{\text{Ox}} \rightarrow \text{CO}_2 + \text{Acetyl-CoA} + \text{H}^+ + \text{Fd}_{\text{Red}}$	0	1000
HYDA: hydrogenase	$2\text{H}^+ + \text{Fd}_{\text{Red}} \rightarrow \text{H}_2 + \text{Fd}_{\text{Ox}}$	0	1000
FNO: ferredoxin NAD ⁺ oxidoreducataase	$\text{NAD}^+ + \text{H}^+ + \text{Fd}_{\text{Red}} \rightarrow \text{NADH} + \text{Fd}_{\text{Ox}}$	0	1000
FNPO: ferredoxin NADP ⁺ oxidoreductase	$\text{NADP}^+ + \text{H}^+ + \text{Fd}_{\text{Red}} \rightarrow \text{NADPH} + \text{Fd}_{\text{Ox}}$	0	1000

* The reduced ferredoxin (Fd_{Red}) and the oxidized ferredoxin (Fd_{Ox}).