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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary File 1. Summary of published information about Arabidopsis and maize FNR iso-proteins. Taken from Hanke *et al*., (2015); Okutani *et al*., (2005), Lintalla *et al*., (2007) Lintalla et al (2009) and Twachtmann *et al*., (2012). Kinetic parameters are for the reverse direction to photosynthesis (NADPH dependent reduction of Fd). | | | | | | | | | | | | | |
| *Arabidopsis* | | | | | | | | | | | | | |
|  | *enzymatic* | | |  | *Localisation in Arabidopsis* | | | | |  | *genetic analysis* | *citation* |
| FNR isoforms | *K*M Fd µM | *k*cat  s-1 | pI | | location, on cell rupture | Cytb*f* co-purification | Arabidopsis tether | | | | Impact of mutation / knock down |  |
| AtFNR1 | 3.5, 2.5 | - | 5.5 | | membrane bound and soluble | not determined | Tic62 / TROL | | | | remaining AtFNR2 becomes soluble | 1, 3, 4 |
| AtFNR2 | 4.3, 3.5 | - | 6.2 | | membrane bound and soluble | not determined | Tic62 / TROL | | | | remaining AtFNR1 is partly membrane bound | 1, 4 |
| *Zea mays* | | | | |  | |  | |  | | | | |
|  | *enzymatic* | | |  | *Localisation in maize* | | |  | *Heterologous over-expression in Arabidopsis* | | | | |
| FNR isoforms | *K*M Fd µM | *k*cat  s-1 | pI | | location, on cell rupture | Cytb*f* co-purification | maize tether | | Interactions with Arabidopsis tether | | Impact on photosynthetic electron transport |  |
| ZmFNR1 | 2.7 | 174 | 6.4 | | membrane bound only | co-purified | TROL | | TROL | | increased ФI/ФII on dark to light transition, faster NPQ development | 2, 5 |
| ZmFNR2 | 3.4 | 288 | 5.4 | | membrane bound and soluble | co-purified | TROL | | Tic62 | | decreased ФI/ФII on dark to light transition, slower NPQ development | 2, 5 |
| ZmFNR3 | 2.7 | 261 | 5.4 | | soluble only | not-co-purified | none | | none | | decreased ФI/ФII on dark to light transition, slower NPQ development | 2, 5 |