**Primers for Group 4 (Karim, Chris, Kelvin, Tae, Christy)**

*>Primer name*

*Primer sequence*

* MetRS

>MetRS BsaI NcoI Fwd

ccagtGGTCTCccatggccAAATTTTACATCACCACCCCAATC

>MetRS BsaI EcoRI Rv

ccagtGGTCTCgaattcTCAGGACACCTTCGCACCTG

* AsnRS 🡪 no primers needed, as it is the same enzyme as GlnRS.
* ProRS

>ProRS NcoI Fwd

ccagtCCATGGcacggatgaaagacctctatgc

>ProRS EcoRI Rv

ccagtGAATTCtcacctgacagcctccttggg

>ProRS SOE-EcoRI Fwd

CAGGGCGAGAGAGTTCATCATGAAGG

>ProRS SOE-EcoRI Rv

CCTTCATGATGAACTCTCTCGCCCTG

* GlnRS subunits AB

>GlnRS-AB NcoI Fwd

ccagtCCATGGcaatcgatttggacttcagaaaac

>GlnRS-AB EcoRI Rv

ccagtGAATTCtcactccccctcgaggag

>GlnRS-AB SOE-EcoRI Fwd

gaaaattctgggGAATcCcagttgcgatc

>GlnRS-AB SOE-EcoRI Rv

gatcgcaactgGgATTCcccagaattttc

* GlnRS subunit C

>GlnRS-C NcoI Fwd

ccagtCCATGGcaATAAAGGTTACAAAGGACC

>GlnRS-C EcoRI Rv

ccagtGAATTCTCATCTGTGGATTCCGGGG

* ArgRS

>ArgRS BsaI NcoI Fwd

ccagtGGTCTCCCATGGcaCTGGTGAACGCGATCAGGC

>ArgRS BsaI EcoRI Rv

ccagtGGTCTCGAATTCTCACATCCTCTCTGGTGCGG

* SerRS

>SerRS BsaI NcoI Fwd

ccagtGGTCTCCCATGGcaATAGATATAAAGCTCATCAG

>SerRS BsaI EcoRI Rv

ccagtGGTCTCGAATTCCTACGGTATCACCTCGAACC

* ThrRS

>ThrRS NcoI Fwd

gctagCCATGGctaagataaaggtgaagcttccag

>ThrRS EcoRI Rv

gcatgGAATTCtcaTTATCCCTCCATTGAAAGTTCG

>ThrRS SOE-NcoI Fwd

CTACAGACACACgATGGCACACATCCTC

>ThrRS SOE-NcoI Rv

GAGGATGTGTGCCATcGTGTGTCTGTAG

* ValRS

>ValRS NcoI Fwd

ccagtCCATGGCAGAACTCTCGACGAGATAC

>ValRS EcoRI Rv

ccagtGAATTCTCATTCTAGATCTCTGAGGATG

>ValRS SOE-EcoRI Fwd

cgcggagaagGAgTTCaccaggctcatg

>ValRS SOE-EcoRI Rv

catgagcctggtGAAcTCcttctccgcg

* TrpRS

>TrpRS NcoI Fwd

ccagtCCATGGcaAGAATACTGAGCGGCATGAG

>TrpRS EcoRI Rv

ccagtGAATTCTCAGAACATCAGGTTCATG

* TyrRS

>TyrRS NcoI Fwd

ccagtCCATGGcaacgccggaggaacaggtg

>TyrRS EcoRI Rv

ccagtGAATTCcaaaggaaattcaagagttttc

>TyrRS SOE-NcoI Fwd

cgcgcttcttCCAcGGtgaagaaaac

>TyrRS SOE-NcoI Rv

gttttcttcaCCgTGGaagaagcgcg