

Supplementary Materials

Figure S1. L-Y-R sequence containing human mitochondrial proteins that are not LYRMs. Complex I assembly factor NDUFAF3, complex IV isoforms of subunits 4 and 7a, complex V subunit B1 (ATP5F1) and the 39S and 28S mitochondrial ribosomal proteins contain L-Y-R sequences. The L-Y-R sequence has been suggested to function as interaction site for the DNAJ type III co-chaperone HSC20 in the Fe-S cluster transfer process, however the listed proteins do not contain Fe-S clusters. In contrast, Fe-S cluster containing subunit SDHB of complex II harbors two L-Y-R(-like) sequences that have been experimentally shown to interact with the HSC20 (see main text).

>NDUFAF3

MATALALRSLYRARPSLRCPVPELPWAPRRGHRLSPADDELYQRTRISLLQREAAQAMYIDSYNSRGFMINGNRVLGPCALLPHSVVQWNVGSHQDITEDSFSLFWLLEPRIIVVGTGDRTERLQSQVLQAMRQRGIAVEVQDTPNACATFNFLCHEGRVTGAALIPPPGGTSLTSLGQAAQ

>ATP5F1

MLSRVVLASAAATAAPSLKNA AFLPGVLQATRFTHTGQPHLVPVPPLPEYGGKVRYGLIPEEFFQFLYPKTGVTGPYVLGTGLILYALSKEIYVISAETFTALSVLGVMVYGIKKYGPFVADFADKLNEQKLAQLEAKQASIQHIQNAIDTEKSQQALVQKRHYLFDVQRNNIAMALEVTYRERLYRVYKEVKNRLDYHISVQNMRRKEQEHEMINWVEKHVVQSISTQQEKETIAKCIADLKLLAKKAQAQPV

>COX4-1

MLATRVFSLVGKRAISTSV CVRAHESVVKSEDFSLPAYMDRRDHPLPEVAHVKHLASQKALKEKEKASWSSLSMDEKVELYRIKFKEFAEMNRRGSNEWKT VVGGMFFIGFTALVIMWQKHYYVYGPLPQSF DKEWVAKQTKRMLDMKVNPIQGLASKWDYEKNEWKK

>COX4-2

MLPRAAWSLVLRKGGGGRRGMHSSEGTTRGGGKMSPYTNCYAQRYYPMPEEPFCTELNAEEQALKEKEGSWTQLTHAEKVALYRLQFNETFAEMNRRSNEWKTVMGCVFFIGFAALVIWWQRVYVFPKPITLTDERKAQQLQRMLDMKVNVPVQGLASRWDEYKQWKK

>COX7A-1

MQALRVSQLIRSFSTARNRFQNRVREKQKLFQEDNDIPLYLKGGIVDNIYRVMTLCLGGTVYSLYSLGWASFPRN

>COX7A-2

MLRNLLALRQIGQRTISTASRRHFKNKVPEKQKLFQEDDEIPLYLKGGVADALYRATMILTVGGTAYAIYELAVASFPPKQE

>39S ribosomal protein L23, mitochondrial

MARNVVYPYRLGGPQLRVFRTNFFIQLVRPGVAQPEDTVQFRIPMEMTRVDLRNYLEGIYNVPVAAVRTRVQHGSNKRRDHRNVRIKKPDYKVAYVQLAHGQTFTFPDLFPEKDESPEGSAADDLYSMLEERQQRQSSDPRRGVPSWFL

>28S ribosomal protein S10, mitochondrial

MAARTAFGAVCRRLWQGLGNFSVNTSKGNTAKNGLLSTNMKWVQFSNLHVDVPKDLTKPVVTISDEPDILYKRLSVLVKGHDKAVLDSYEFYAVLA AKELGISIKVHEPPRKIERFTLLQSVHIYKKHRVQYEMRTLYRCLELEHLTGSTADVLEYIQRNLPEGVAMEVTKTQLEQLPEHIKEPIWETLSEEKEESKS

>SDHB (binds three Fe-S clusters)

MAAVVALSLRRRLPATTLGGACLQASRGAAATAAPRIKKFALYRWDPDKAGDKPHMQTYEVDLNKCGPMVLDALIKIKNEVDSTLTFRRSCREGICGSCAMNINGNTLACTRRIDTNLNKVS KIYPLPHMYVIKDLVPDLSNFYAQYKSIEPYLKKKDESEQGKQYQLQSIEEREKLDGLYECILCACCSTSCPSYWWNGDKYLGPAVLMQAYRW MIDSRDDFTEERLAKLQDPFSLYRCHTIMNCTRTCPKGLNPGKAIAEIKKM MATYKEKKASV
