

**Table S1:** List of 15-mer peptides of Aabrin and Babrin

| <b>ATA</b>          | <b>ATB</b>          |
|---------------------|---------------------|
| 1 EDRPIKFSTEGATSQ   | 1 IVEKSKICSSRYEPT   |
| 2 KFSTEGATSQSYKQF   | 2 KICSSRYEPTVRIGG   |
| 3 GATSQSYKQFIEALR   | 3 RYEPTVRIGGRDGMG   |
| 4 SYKQFIEALRERLRG   | 4 VRIGGRDGMCVDVYD   |
| 5 IEALRERLRGGIHD    | 5 RDGMCVDVYDNGYHN   |
| 6 ERLRGGLIHDIPVLP   | 6 VDVYDNGYHNGNRRI   |
| 7 GLIHDIPVLPDPTTL   | 7 NGYHNGNRRIIMWKCK  |
| 8 IPVLPDPTTLQERNR   | 8 GNRRIIMWKCKDRLEE  |
| 9 DPTTLQERNRYITVE   | 9 MWKCKDRLEENQLWT   |
| 10 QERNRYITVELSNSD  | 10 DRLEENQLWTLKSDK  |
| 11 YITVELSNSDTESEI  | 11 NQLWTLKSDKTIRSN  |
| 12 LNSDTESEIYVGDV   | 12 LKSDKTIRSNKCLT   |
| 13 TESIEVGDVFNAYV   | 13 TIRSNKCLTTYGYA   |
| 14 VGIDVFNAYVAYRA   | 14 GKCLTTYGYAPGSYV  |
| 15 FNAYVAYRAGTQSY   | 15 TYGYAPGSYVMYDC   |
| 16 VAYRAGTQSYFLRDA  | 16 PGSYVMYDCTSAVA   |
| 17 GTQSYFLRDAPSSAS  | 17 MIYDCTSAVAEATYW  |
| 18 FLRDAPSSASDYLF   | 18 TSAVAEATYWEIWDN  |
| 19 PSSASDYLFGTGDQH  | 19 EATYWEIWDNGTIIN  |
| 20 DYLFGTGDQHSPLPFY | 20 EIWDNGTIINPKSAL  |
| 21 GTDQHSPLFYGTGYD  | 21 GTIINPKSALVLSAE  |
| 22 SPLFYGTGDLERWA   | 22 PKSALVLSAESSSMG  |
| 23 GTYGDLERWAHQSRQ  | 23 VLSAESSSMGGTLTV  |
| 24 LERWAHQSRQIPLG   | 24 SSSMGGTLTVQTNEY  |
| 25 HQSRQIPLGLQALT   | 25 GTLTVQTNEYLMRQG  |
| 26 QIPLGLQALHTGISF  | 26 QTNEYLMRQGWRTGN  |
| 27 LQALHTGISFFRSGG  | 27 LMRQGWRTGNNTS    |
| 28 HGISFFRSGGNDNEE  | 28 WRTGNNTSPFVTSIS  |
| 29 FRSGGNDNEEKARTL  | 29 NTSFPVTSISGYSDL  |
| 30 NDNEEKARTLIVIIQ  | 30 VTSISGYSDLCMQAQ  |
| 31 KARTLIVIIQMVAEA  | 31 GYSDLCMQAQGSNVW  |
| 32 IVIIQMVAEAARFRY  | 32 CMQAQGSNVWMADCD  |
| 33 MVAEAARFRYISNRV  | 33 GSNVWMADCDNSNKE  |
| 34 ARFRYISNRVRSIQ   | 34 MADCDNSNKEQQWAL  |
| 35 ISNRVRSIQGTGAF   | 35 SNKKEQQWALYDGS   |
| 36 RVSQGTGAFQPDAA   | 36 QQWALYDGSIRSVQ   |
| 37 TGAFQPDAAAMISLE  | 37 YDGSIRSVQNTNNC   |
| 38 QPDAAAMISLENNWDN | 38 IRSVQNTNNTSKD    |
| 39 MISLENNWDNLSRGV  | 39 NTNNTSKDHKQGS    |
| 40 NNWDNLSRGVQESVQ  | 40 LTKDHKQGSTILLM   |
| 41 LSRGVQESVQDTPFN  | 41 HKQGSTILLMGCSNG  |
| 42 QESVQDTPFNQVTLT  | 42 TILLMGCSNGWASQR  |
| 43 DTPFNQVTLTNIRNE  | 43 GCSNGWASQRWVFKN  |
| 44 QVTLTNIRNEPVIIVD | 44 WASQRWVFKNDGSIY  |
| 45 NIRNEPVIIVDSLHP  | 45 WVFKNDSIYSLYDD   |
| 46 PVIIVDSLHPVAVL   | 46 DGSYSLYDDMVMMDV  |
| 47 SLHPVAVLALMLF    | 47 SLYDDMVMMDVKGSDP |
| 48 TVAVLALMLFVCNPP  | 48 MVMMDVKGSDPSLKQI |
| 49 VAVLALMLFVCNPPN  | 49 KGS DPSLKQIILWPY |
|                     | 50 SLKQIILWPYTGKPN  |
|                     | 51 ILWPYTGKPNQIWLTL |
|                     | 52 WPYTGKPNQIWLTLF  |