

**S3 Table. NMR shift values of the Taspase1 loop, given in ppm.**

| aa  | Res | HN   | N      | Cα    | Cβ    | Hα        |
|-----|-----|------|--------|-------|-------|-----------|
| 178 | Gly | 8.55 | 109.59 | 44.62 | -     | 3.99/3.75 |
| 179 | Ile | 8.08 | 121.76 | 58.24 | 34.24 | 4.5       |
| 180 | Pro | -    | -      | 62.95 | 31.69 | -         |
| 181 | Ser | 8.38 | 115.85 | 58.06 | 63.69 | 4.46      |
| 182 | Cys | 8.48 | 121.62 | 52.84 | 40.08 | 4.20      |
| 183 | Pro | -    | -      | -     | -     | -         |
| 184 | Pro | -    | -      | 62.89 | 31.69 | -         |
| 185 | Asn | 8.48 | 118.19 | 52.89 | 38.30 | 4.66      |
| 186 | Ile | 8.07 | 120.83 | 60.94 | 38.36 | 4.19      |
| 187 | Met | 8.42 | 123.40 | 55.48 | 32.27 | 4.51      |
| 188 | Thr | 8.13 | 114.82 | 61.97 | 69.33 | 4.35      |
| 189 | Thr | 8.11 | 116.01 | 62.14 | 69.78 | 4.29      |
| 190 | Arg | -    | -      | 56.46 | 29.97 | -         |
| 191 | Phe | 8.16 | 120.58 | 57.66 | 38.99 | 4.49      |
| 192 | Ser | 8.12 | 117.26 | 57.16 | 63.41 | 4.46      |
| 193 | Leu | 8.34 | 124.86 | 55.82 | 41.69 | 4.42      |
| 194 | Ala | 8.17 | 123.11 | 53.01 | 18.42 | 4.26      |
| 195 | Ala | 8.01 | 121.53 | 53.01 | 18.37 | 4.18      |
| 196 | Phe | 7.99 | 118.70 | 58.29 | 38.88 | 4.51      |
| 197 | Lys | 8.11 | 121.52 | 56.63 | 32.44 | 4.18      |
| 198 | Arg | 8.17 | 121.10 | 56.51 | 30.26 | -         |
| 199 | Asn | -    | -      | -     | -     | -         |
| 200 | Lys | -    | -      | 56.63 | 32.33 | -         |
| 201 | Arg | 8.23 | 121.27 | 56.11 | 30.37 | 4.53      |
| 202 | Lys | 8.22 | 121.98 | 56.17 | 32.39 | 4.30      |
| 203 | Leu | 8.20 | 122.99 | 55.25 | 41.75 | 4.27      |
| 204 | Glu | 8.39 | 121.58 | 56.23 | 29.68 | 4.25      |
| 205 | Leu | 8.17 | 122.33 | 55.19 | 41.92 | 4.27      |
| 206 | Ala | 8.16 | 123.64 | 52.49 | 18.59 | -         |
| 207 | Glu | 8.21 | 119.30 | 56.11 | 29.91 | 4.22      |
| 208 | Arg | 8.40 | 122.29 | 56.11 | 30.03 | 4.30      |
| 209 | Val | 8.23 | 120.83 | 61.91 | 32.38 | 4.15      |
| 210 | Asp | 8.46 | 123.79 | 54.10 | 40.94 | 4.57      |
| 211 | Thr | 8.09 | 114.10 | 62.32 | 69.21 | -         |
| 212 | Asp | 8.38 | 122.47 | 54.62 | 40.31 | 4.29      |
| 213 | Phe | 8.15 | 120.71 | 58.87 | 38.59 | 4.46      |
| 214 | Met | 8.16 | 119.54 | 56.05 | 31.46 | 4.24      |
| 215 | Gln | 8.12 | 119.37 | 56.17 | 28.36 | 4.21      |
| 216 | Leu | 8.05 | 121.66 | 55.88 | 41.63 | 4.26      |
| 217 | Lys | 8.13 | 120.59 | 56.51 | 32.10 | 4.17      |
| 218 | Lys | -    | -      | 56.24 | 32.38 | -         |
| 219 | Arg | 8.25 | 121.84 | 56.23 | 30.26 | 4.30      |
| 220 | Arg | 8.23 | 121.81 | 56.23 | 30.26 | 4.33      |
| 221 | Gln | 8.51 | 121.71 | 55.94 | 29.11 | 4.20      |
| 222 | Ser | 8.45 | 117.04 | 58.41 | 63.41 | -         |
| 223 | Ser | 8.39 | 117.31 | 58.29 | 63.41 | -         |
| 224 | Glu | 8.44 | 122.43 | 56.51 | 29.68 | 4.24      |
| 225 | Lys | 8.25 | 121.13 | 56.11 | 32.45 | 4.25      |
| 226 | Glu | 8.40 | 121.60 | 56.34 | 29.86 | 4.23      |
| 227 | Asn | 8.45 | 119.13 | 52.95 | 38.59 | 4.73      |
| 228 | Asp | 8.36 | 121.10 | 54.16 | 40.83 | 4.57      |
| 229 | Ser | 8.37 | 116.28 | 58.29 | 63.75 | 4.39      |
| 230 | Gly | 8.49 | 110.73 | 44.97 | -     | 3.85      |
| 231 | Thr | 8.03 | 113.66 | 61.45 | 69.38 | 4.40      |
| 232 | Leu | 8.37 | 124.79 | 54.67 | 42.04 | 4.43      |
| 233 | Asp | 7.89 | 126.37 | 55.48 | 41.86 | 4.36      |