

5' tgcgcggttttcgggtgatgacggtgaaaacctctgacacatgcagctcccggagacggtcacagcttgtct  
70

o  
o  
5' gtaagcggatgccgggagcagacaagcccgtcaggggcgcgctcagcgggtggttgcggggtgtcggggctgg  
140

o  
o  
o  
EcoRI EcoRV HpaI Acc65I KpnI SpeI  
cttaactatgcggcatcagagcagattgtactgagagtgcacgaattcgatatcgttaacggtaccacta  
210

o  
o  
MluI  
5' gtacgcgtatgctgagggtcttcattccttatgccgagaacgtccacacacccgacaccgacatcagcga  
280

o  
o  
**Dysferlin-Exon-45-deletion**

M	L	R	V	F	I	L	Y	A	E	N	V	H	T	P	D	T	D	I	S	D
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

o  
o  
SacII  
5' tgcttactgctccgcgggtgtttgcaggggtgaagaagagaaccaaaagtcatacaaacagcgtgaaccct  
350

o  
o  
**Dysferlin-Exon-45-deletion**

A	Y	C	S	A	V	F	A	G	V	K	K	R	T	K	V	I	K	N	S	V	N	P
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

o  
o  
5' gtatggaatgagggatttgaatgggacctaaggggcatccccctggaccagggctctgagcttcatgtgg  
420

o  
o  
**Dysferlin-Exon-45-deletion**

V	W	N	E	G	F	E	W	D	L	K	G	I	P	L	D	Q	G	S	E	L	H	V
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67

o  
o  
5' tggtaaagaccatgagacgatggggaggaacaggttcctgggggaagccaaggtcccactccgagaggt  
490

o  
o  
**Dysferlin-Exon-45-deletion**

V	V	K	D	H	E	T	M	G	R	N	R	F	L	G	E	A	K	V	P	L	R	E	V
68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91

o  
o  
5' cctcgccacccctagtctgtccgccagcttcaatgccccctgctggacaccaagaagcagcccacaggg  
560

o  
o  
**Dysferlin-Exon-45-deletion**

L	A	T	P	S	L	S	A	S	F	N	A	P	L	L	D	T	K	K	Q	P	T	G
92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114

o

5' cctcgcctggctcctgcaggtgtcctacacacacgcctggagctgtgcacctgttcccgccccctactc 630  
o  
o  
Dysferlin-Exon-45-deletion  
A S L V L Q V S Y T P L P G A V P L F P P P T  
115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137

5' ctctggagaccctccccgactctgcctgacctggatgtagtggcagacacaggaggagaggaagacacaga 700  
o  
o  
Dysferlin-Exon-45-deletion  
P L E P S P T L P D L D V V A D T G G E E D T E  
138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161

5' ggaccaggggactcactggagatgaggcggagccattcctggatcaaagcggaggccccgggggctcccacc 770  
o  
o  
Dysferlin-Exon-45-deletion  
D Q G L T G D E A E P F L D Q S G G P G A P T  
162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184

5' accccaaggaaactaccttcacgtcctccgccccactaccccgggatcaaaagaaagcgaagtgcgccta 840  
o  
o  
Dysferlin-Exon-45-deletion  
T P R K L P S R P P P H Y P G I K R K R S A P  
185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207

XbaI  
5' catctagaaaagctgctgtcagacaaaaccgcaggatttccagatcagggtccaggtgatcgaggggcgcca 910  
o  
o  
Dysferlin-Exon-45-deletion  
T S R K L L S D K P Q D F Q I R V Q V I E G R Q  
208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231

5' gctgccgggggtgaacatcaagcctgtggtcaagggtaccgctgcagggcagaccaagcggacgcggatc 980  
o  
o  
Dysferlin-Exon-45-deletion  
L P G V N I K P V V K V T A A G Q T K R T R I  
232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254

5' cacaaggggaaacagcccactcttcaatgagactcttttcttcaacttgtttgactctcctggggagctgt 1050  
o  
o  
Dysferlin-Exon-45-deletion  
H K G N S P L F N E T L F F N L F D S P G E L  
255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277

5' ttgatgagcccatccttatcacggtggtagactctcgttctctcaggacagatgctctcctcggggagt  
+  
Dysferlin-Exon-45-deletion  
F D E P I F I T V V D S R S L R T D A L L G E F  
278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301

5' ccggaatggacgtgggcaccatttacagagagccccggcagcctatctcaggaagtggctgctgctctca  
+  
Dysferlin-Exon-45-deletion  
R M D V G T I Y R E P R H A Y L R K W L L L S  
302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324

5' gaccctgatgacttctctgctggggccagaggctacctgaaaacaagcctttgtgtgctggggcctgggg  
+  
Dysferlin-Exon-45-deletion  
D P D D F S A G A R G Y L K T S L C V L G P G  
325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347

5' acgaagcgcctctggagagaaaagacccctctgaagacaaggaggacattgaaagcaacctgctccggcc  
+  
Dysferlin-Exon-45-deletion  
D E A P L E R K D P S E D K E D I E S N L L R P  
348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371

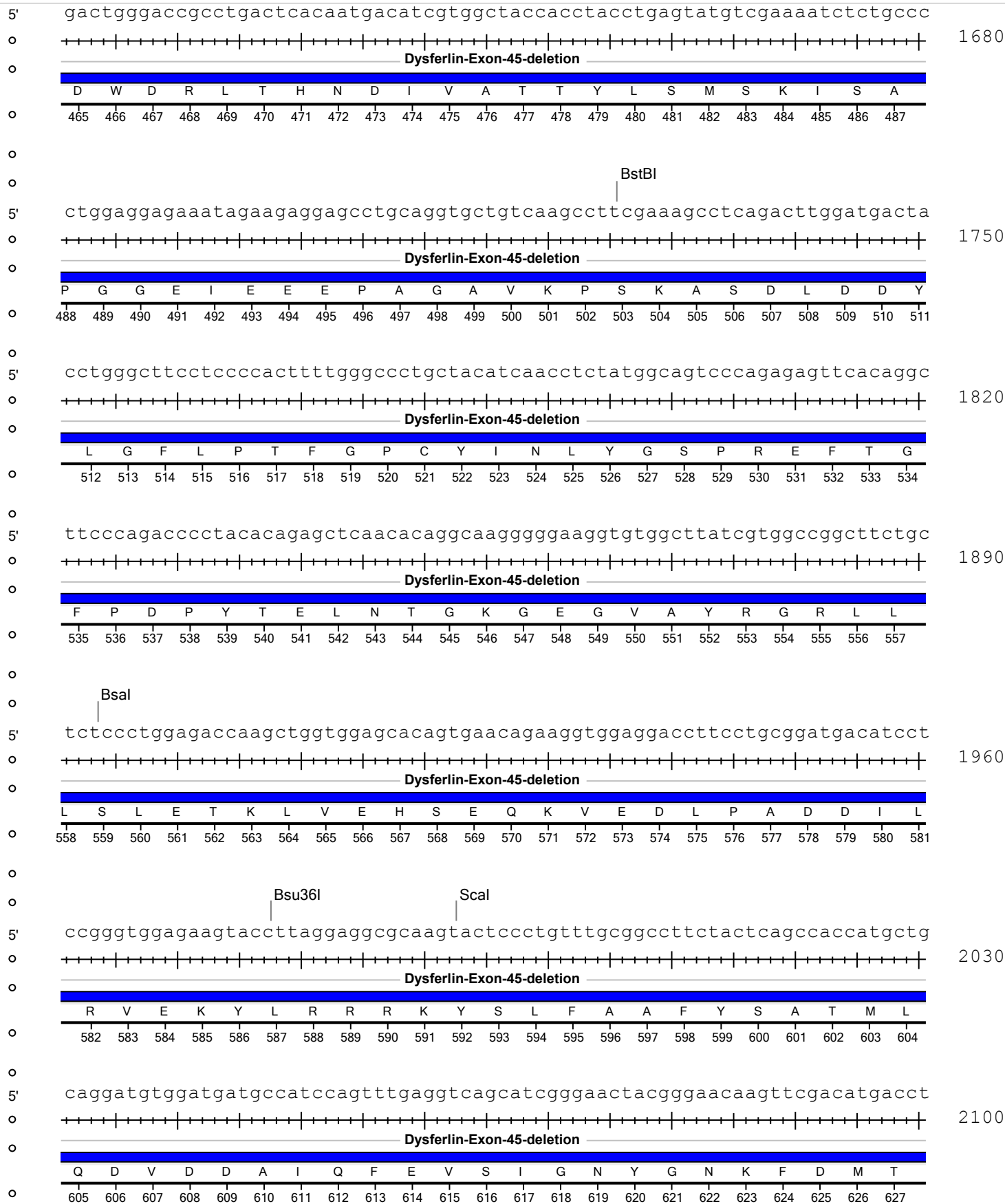
5' cacaggcgtagccctgcgaggagcccacttctgcctgaaggcttccggggccgaggacttgccgcagatg  
+  
Dysferlin-Exon-45-deletion  
T G V A L R G A H F C L K V F R A E D L P Q M  
372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394

5' gacgatgccgtgatggacaacgtgaaacagatctttggcttcgagagtaacaagaagaacttggtggacc  
+  
Dysferlin-Exon-45-deletion  
D D A V M D N V K Q I F G F E S N K K N L V D  
395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417

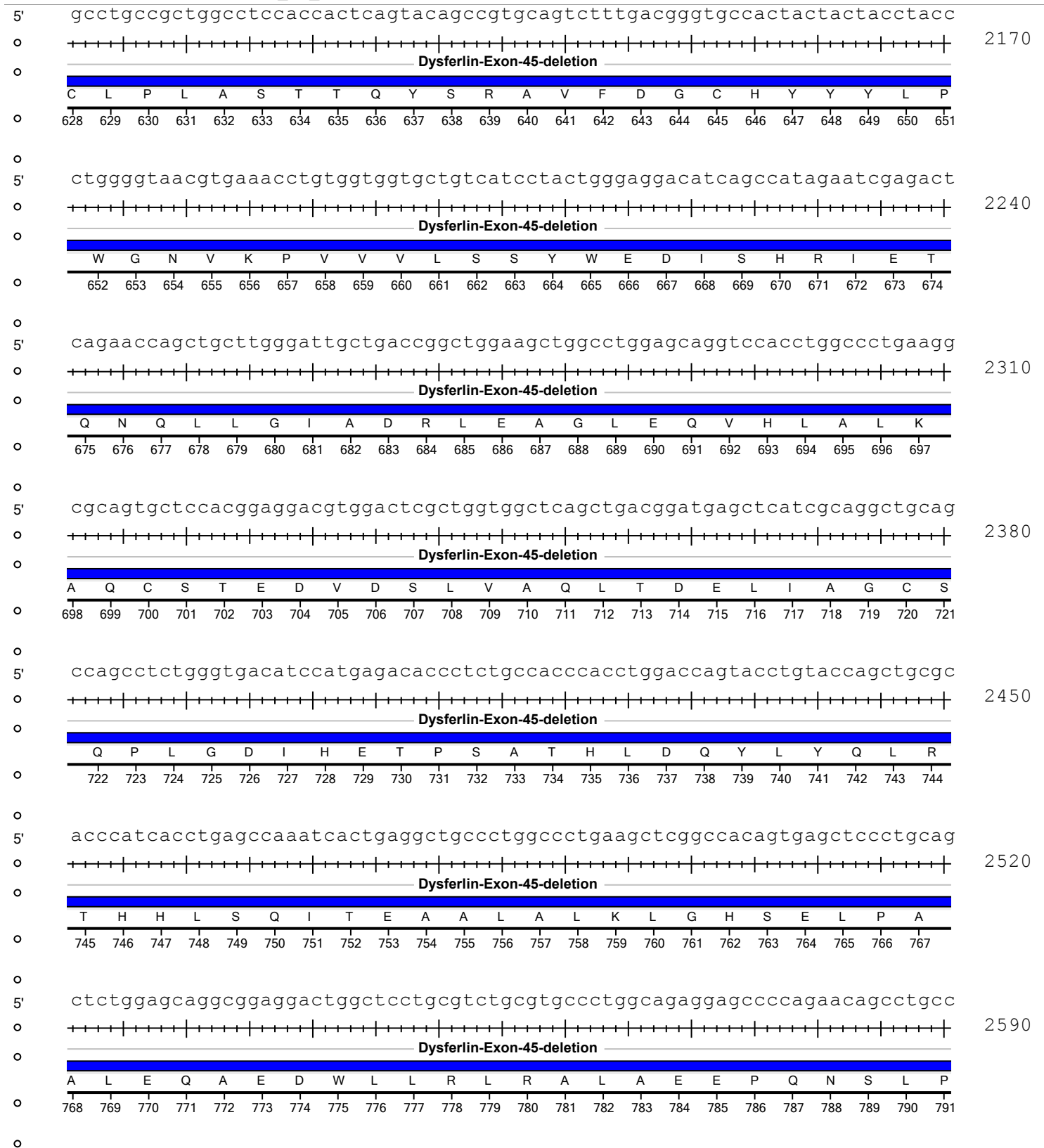
5' cctttgtggaggtcagctttgcggggaaaaatgctgtgcagcaagatcttgagaagacggccaaccctca  
+  
Dysferlin-Exon-45-deletion  
P F V E V S F A G K M L C S K I L E K T A N P Q  
418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441

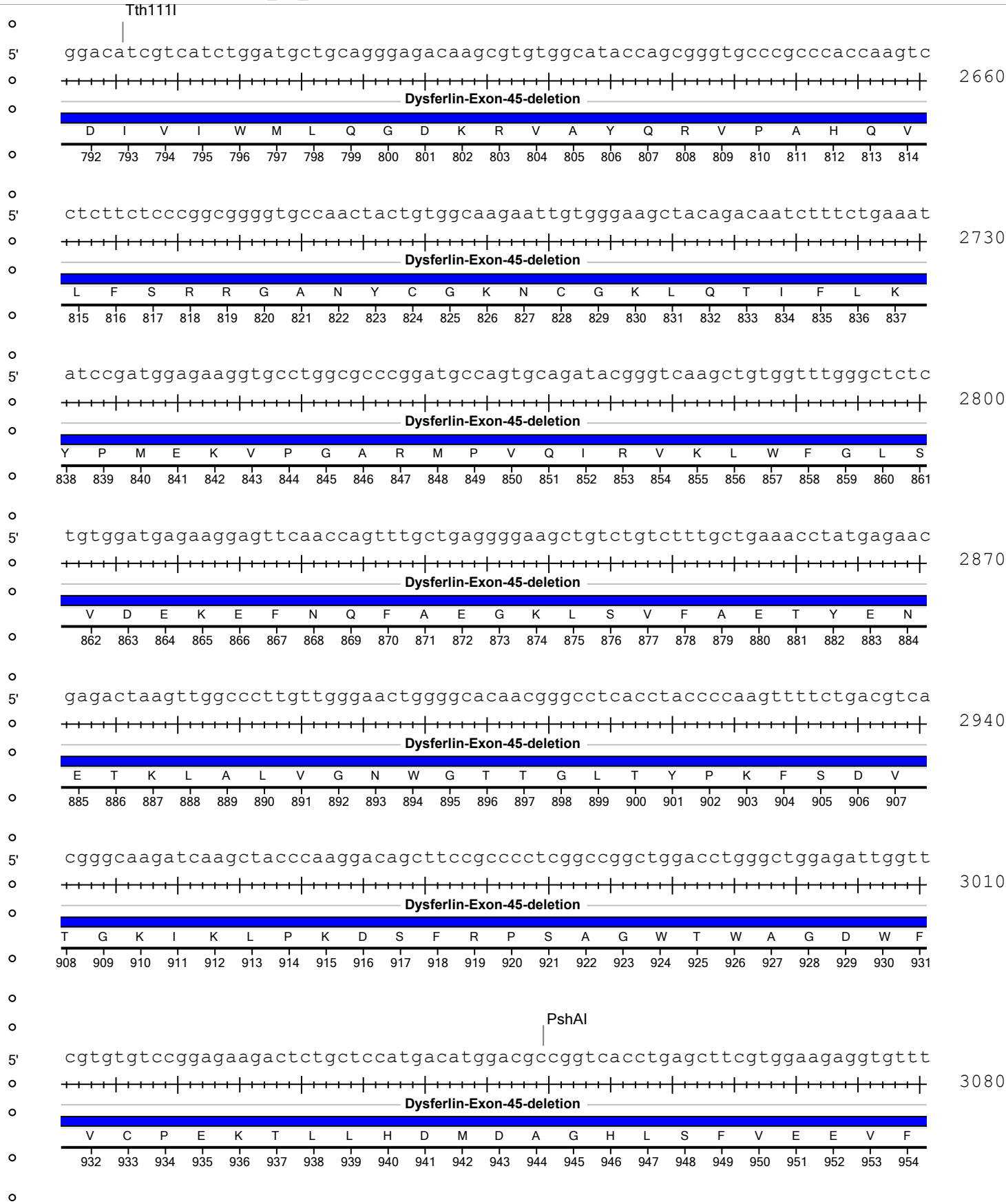
5' gtggaaccagaacatcacactgcctgccatgtttccctccatgtgcgaaaaaatgaggattcgtatcata  
+  
Dysferlin-Exon-45-deletion  
W N Q N I T L P A M F P S M C E K M R I R I I  
442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464

Dysferlin-Exon-45-deletion\_in\_pUC57-Kan

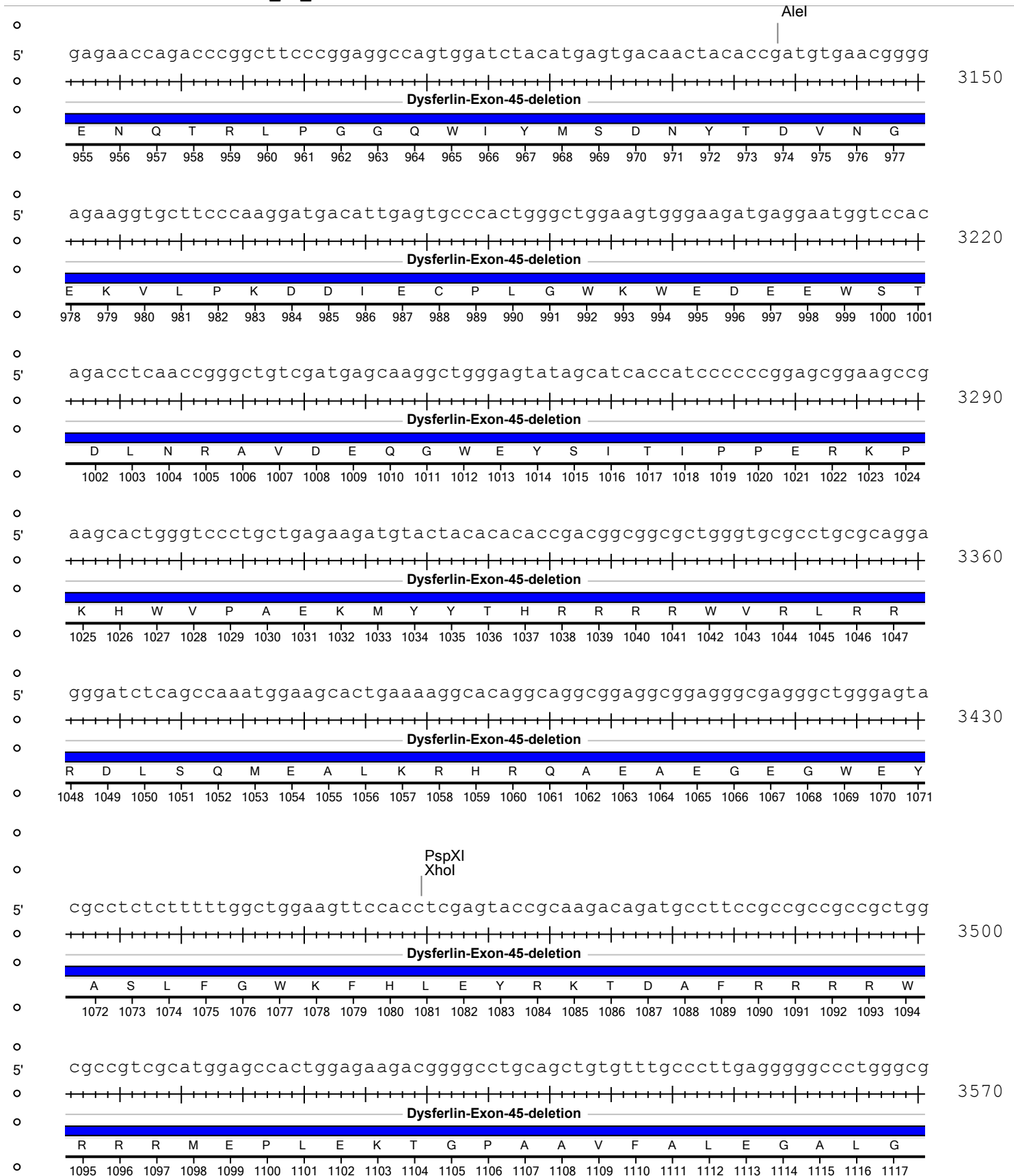


# Dysferlin-Exon-45-deletion\_in\_pUC57-Kan





# Dysferlin-Exon-45-deletion\_in\_pUC57-Kan





5' c g c g t g a t g g a t g a c a a g a g t g a a g a t t c c g t c t c c a c c t t g a g c t t c g g t g t g a a c a g a c c a c

+

Dysferlin-Exon-45-deletion

G V M D D K S E D S M S V S T L S F G V N R P T

1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141

5' g a t t t c c t g c a t a t t c g a c t a t g g g a a c c g c t a c c a t c t a c g c t g c t a c a t g t a c c a g g c c c g g g a c c t g

+

Dysferlin-Exon-45-deletion

I S C I F D Y G N R Y H L R C Y M Y Q A R D L

1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164

5' g c t g c g a t g g a c a a g g a c t c t t t t t c t g a t c c c t a t g c c a t c g t c t c c t t c c t g c a c c a g a g c c a g a a g a

+

Dysferlin-Exon-45-deletion

A A M D K D S F S D P Y A I V S F L H Q S Q K

1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187

5' c g g t g g t g g t g a a g a a c a c c c t t a a c c c c a c c t g g g a c c a g a c g c t c a t c t t c t a c g a g a t c g a g a t c t t

+

Dysferlin-Exon-45-deletion

T V V V K N T L N P T W D Q T L I F Y E I E I F

1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211

5' t g g c g a g c c g g c c a c a g t t g c t g a g c a a c c g c c c a g c a t t g t g g t g g a g c t g t a c g a c c a t g a c a c t t a t

+

Dysferlin-Exon-45-deletion

G E P A T V A E Q P P S I V V E L Y D H D T Y

1212 1213 1214 1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229 1230 1231 1232 1233 1234

5' g g t g c a g a c g a g t t t a t g g g t c g c t g c a t c t g t c a a c c g a g t c t g g a a c g g a t g c c a c g g c t g g c c t g g t

+

Dysferlin-Exon-45-deletion

G A D E F M G R C I C Q P S L E R M P R L A W

1235 1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257

5' t c c c a c t g a c g a g g g g c a g c c a g c c g t c g g g g g a g c t g c t g g c c t c t t t t g a g c t c a t c c a g a g a g a a

+

Dysferlin-Exon-45-deletion

F P L T R G S Q P S G E L L A S F E L I Q R E K

1258 1259 1260 1261 1262 1263 1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281

5' g c c g g c c a t c c a c c a t a t t c c t g g t t t t g a g g t g c a g g a g a c a t c a a g g a t c c t g g a t g a g t c t g a g g a c

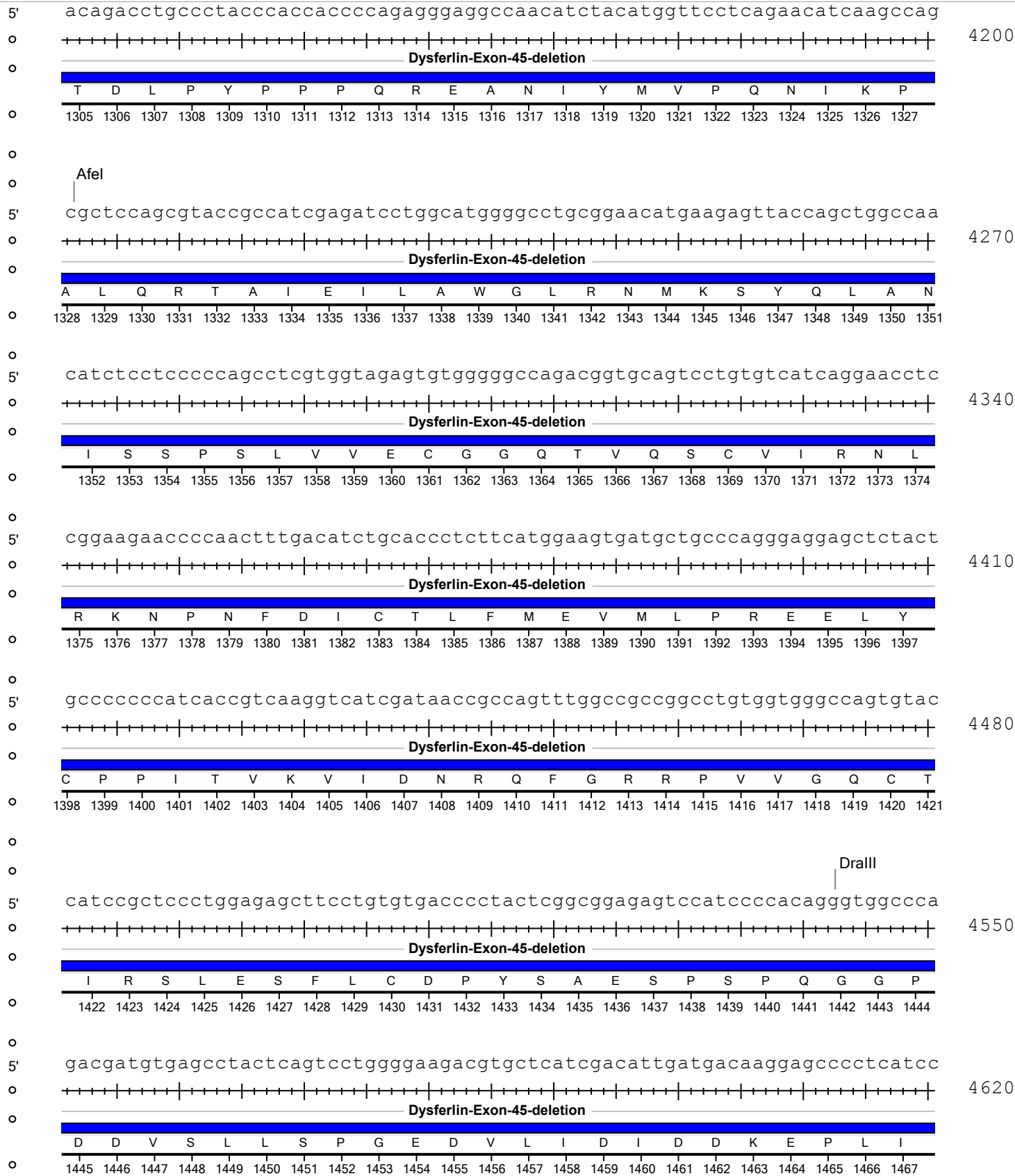
+

Dysferlin-Exon-45-deletion

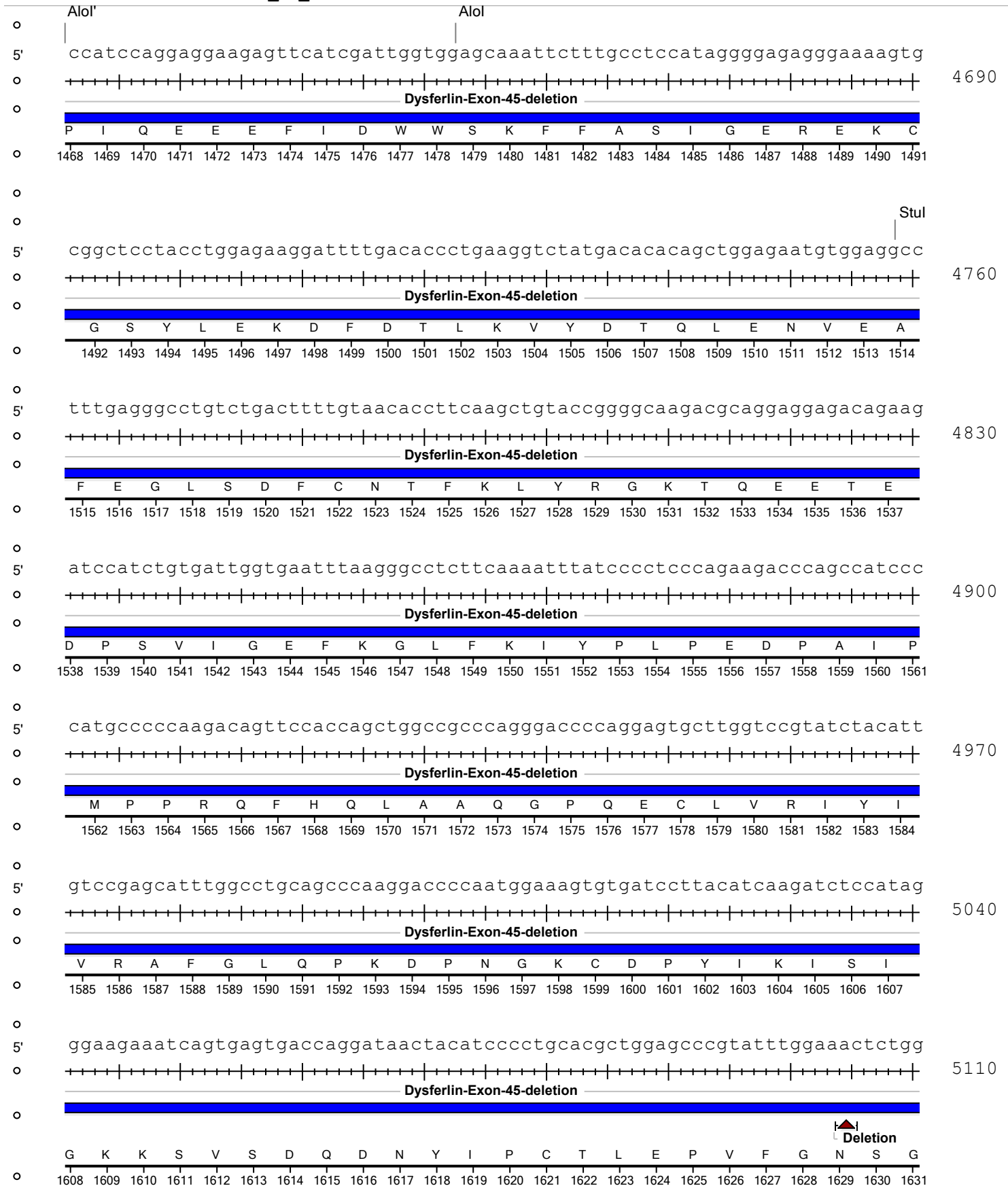
P A I H H I P G F E V Q E T S R I L D E S E D

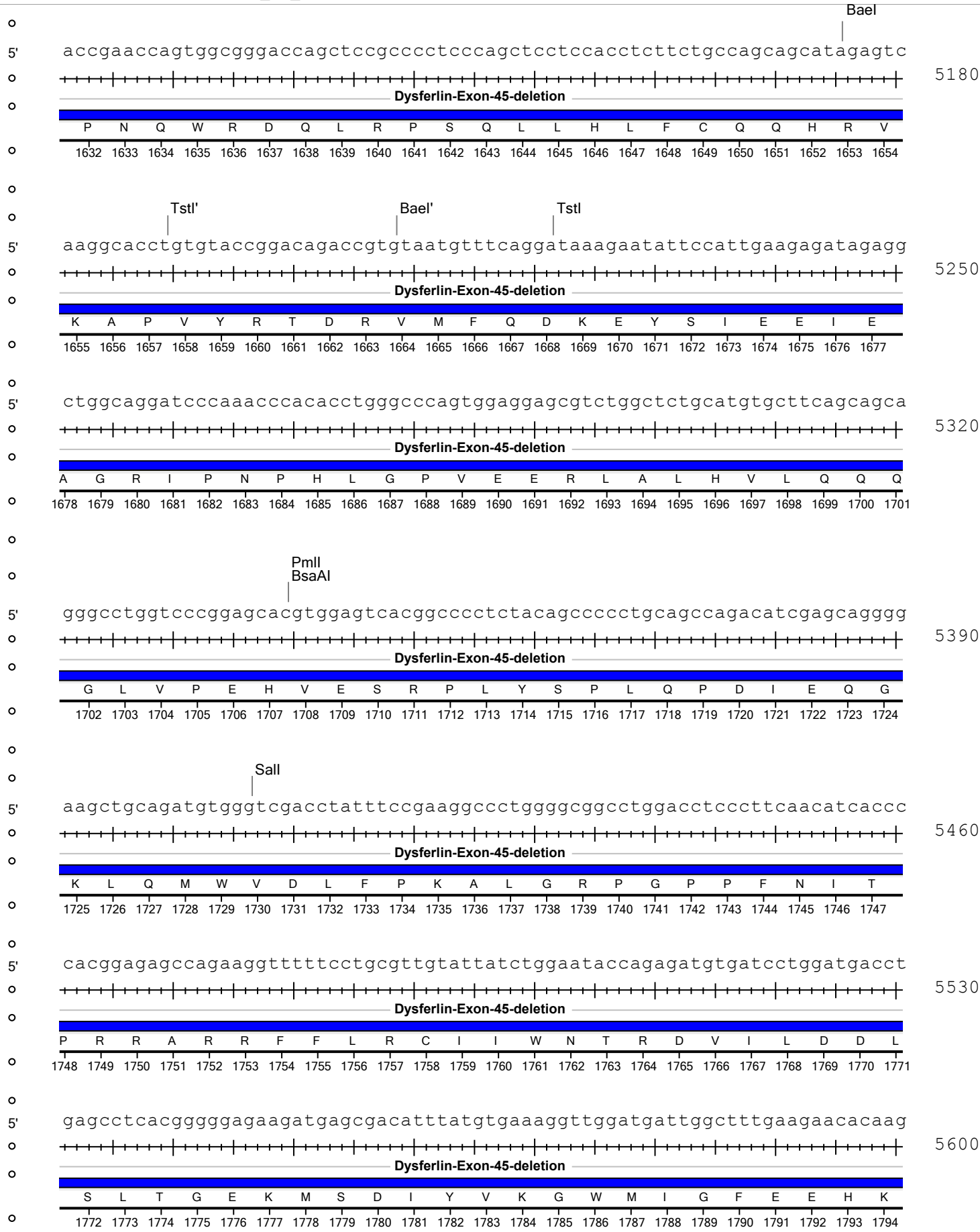
1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304

Dysferlin-Exon-45-deletion\_in\_pUC57-Kan

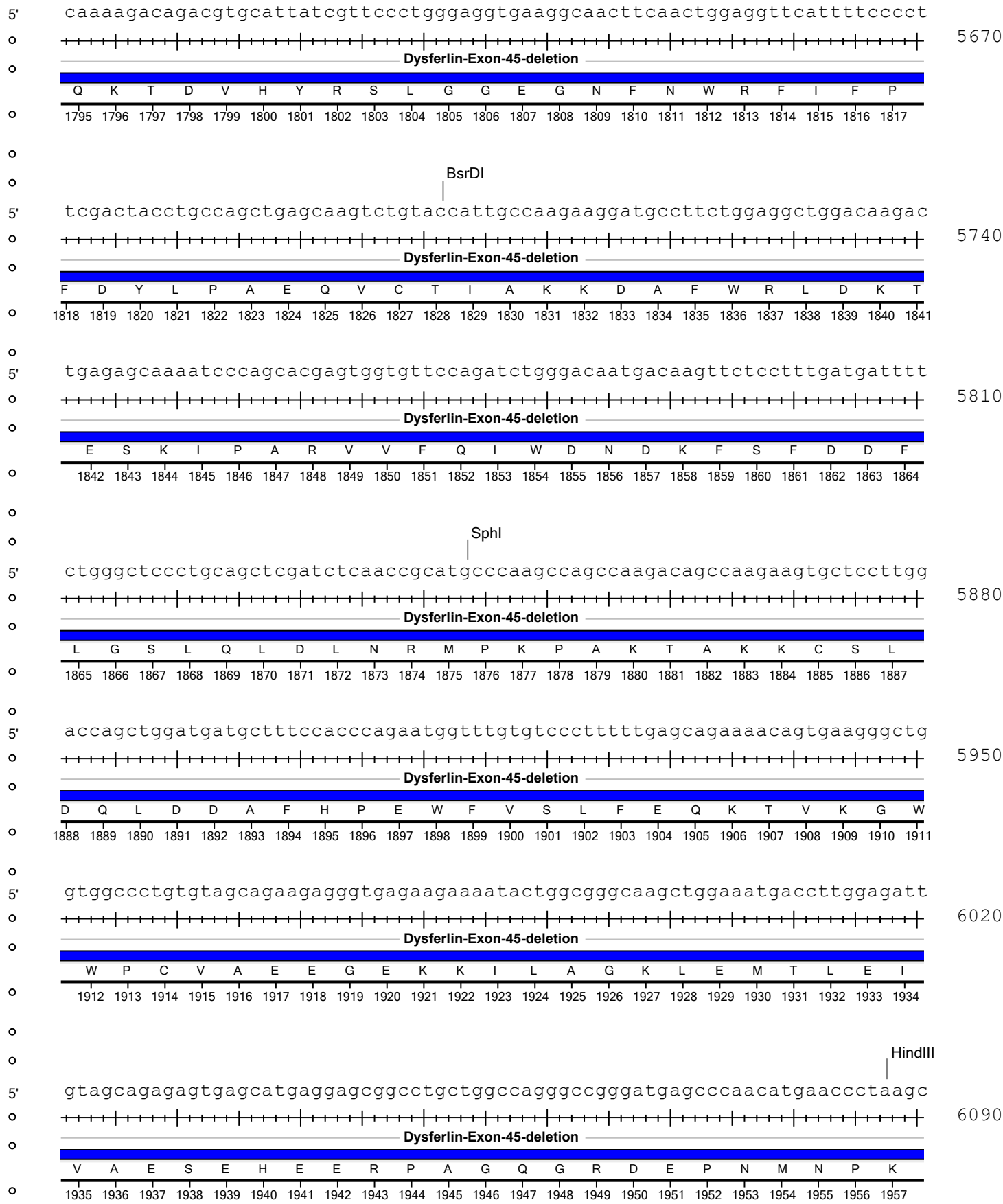


# Dysferlin-Exon-45-deletion\_in\_pUC57-Kan

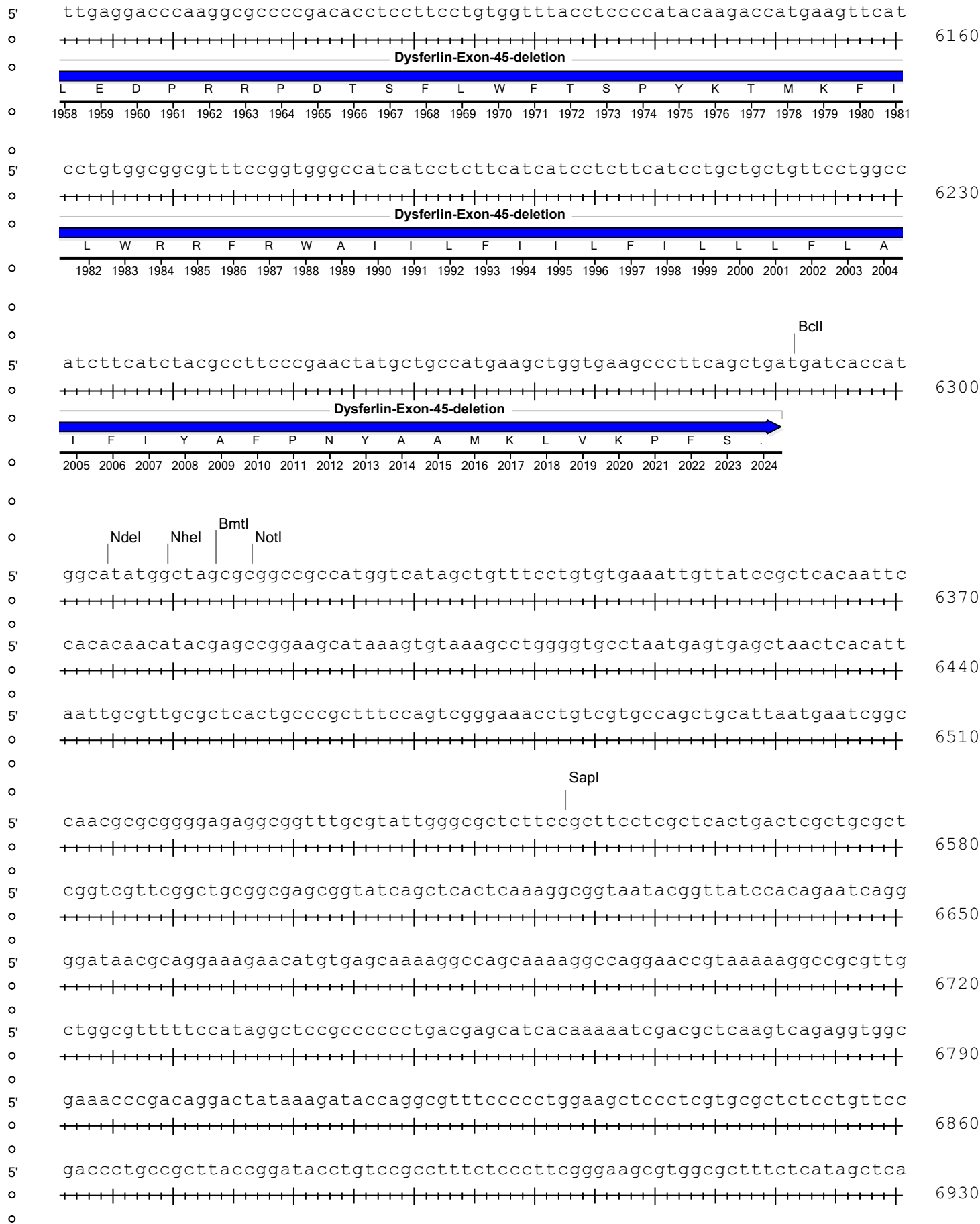




Dysferlin-Exon-45-deletion\_in\_pUC57-Kan



Dysferlin-Exon-45-deletion\_in\_pUC57-Kan



[illegible]

# Dysferlin-Exon-45-deletion\_in\_pUC57-Kan

