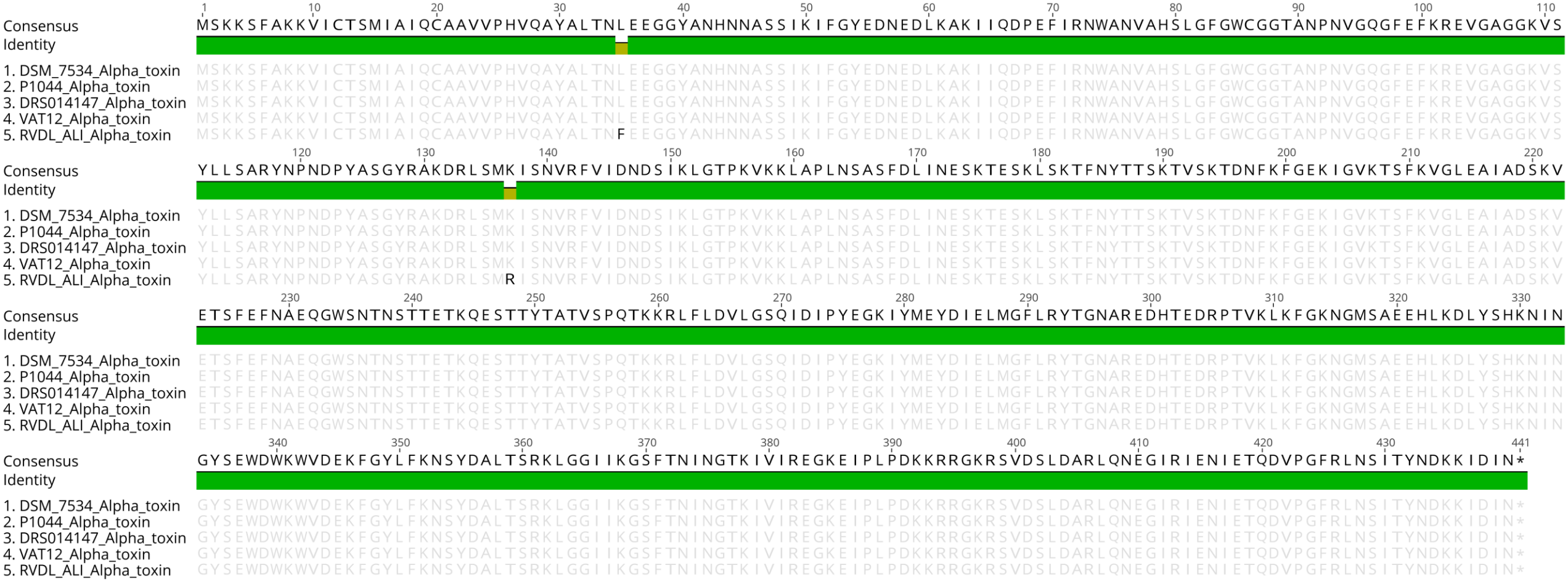
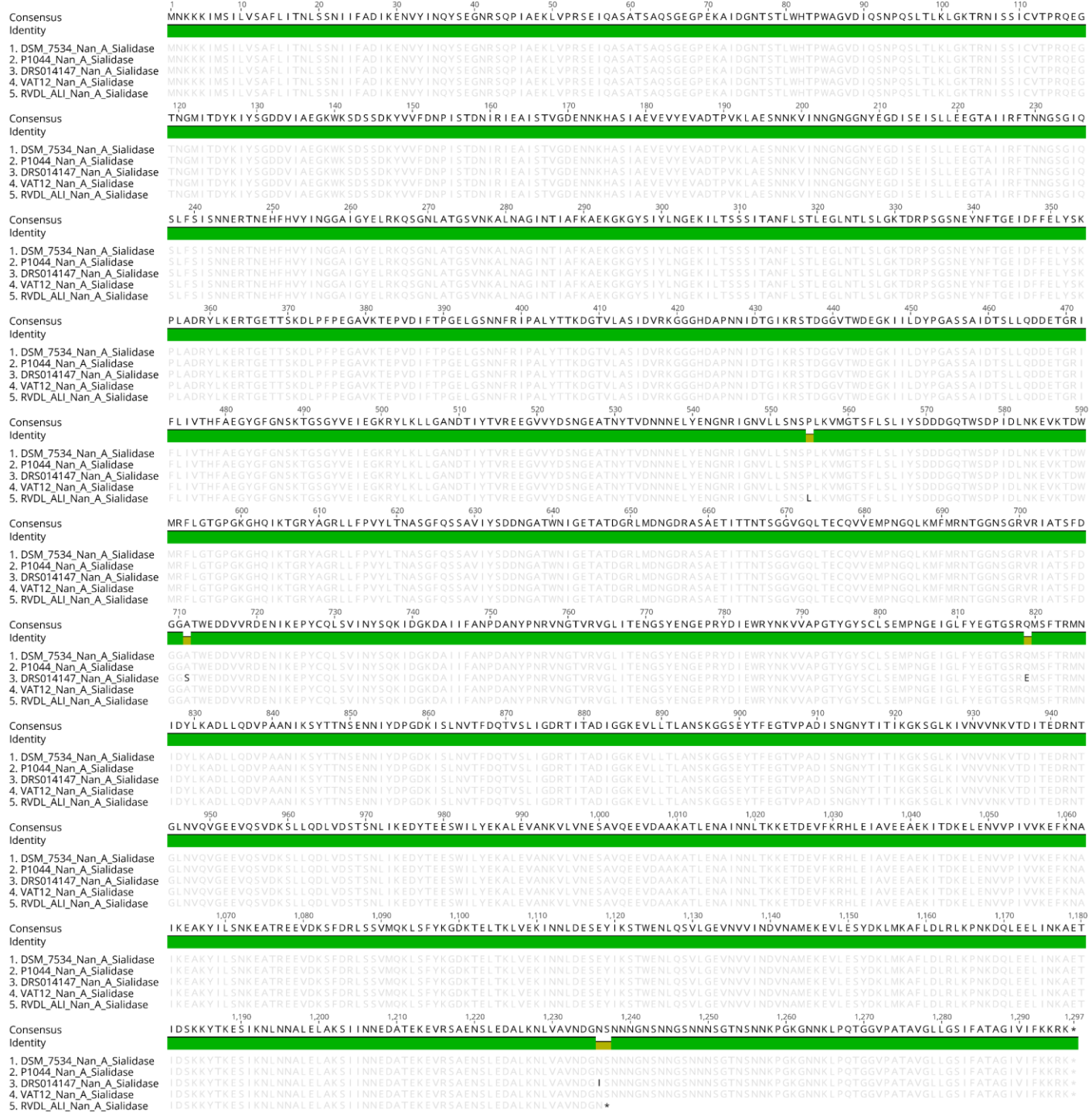
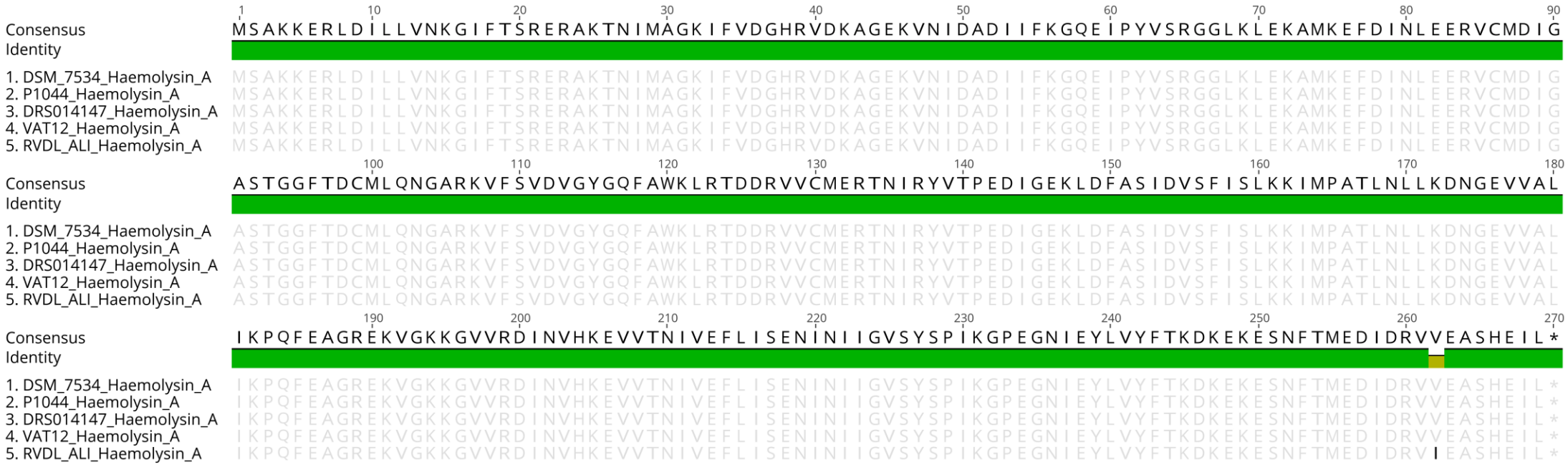
A


1 10 20 30 40 50 60 70 80 90 100 110
Consensus
MSKKSFAKKVICTSMIAIQCAAVVPHVQAYALTNLEEGGYANHNNASSIKIFGYEDNEDLKAKIIQDPEFIRNWANVAHSLGFGWCGGTANPNVGQGFEFKREVGAGGKVS
Identity
1. DSM_7534_Alpha_toxin
2. P1044_Alpha_toxin
3. DRS014147_Alpha_toxin
4. VAT12_Alpha_toxin
5. RVDL_ALI_Alpha_toxin
F
120 130 140 150 160 170 180 190 200 210 220
Consensus
YLLSARYNPNDPYASGYRAKDRLSMKISNVRFVIDNDSIKLGTPKVKKLAPLNSASFDLINESKTESKLSKTFNYTTSKTVSKTDNFKFGEKIGVKTSFKVGLEAIADSKV
Identity
1. DSM_7534_Alpha_toxin
2. P1044_Alpha_toxin
3. DRS014147_Alpha_toxin
4. VAT12_Alpha_toxin
5. RVDL_ALI_Alpha_toxin
R
230 240 250 260 270 280 290 300 310 320 330
Consensus
ETSFEFNAEQGWSNTNSTTETKQESTTYTATVSPQTKKRLFLDVLGSQIDIPYEGKIYMEYDIELMGFLRYTGNAREDHTEDRPTVKLKFGKNGMSAEEHLKDLYSHKNIN
Identity
1. DSM_7534_Alpha_toxin
2. P1044_Alpha_toxin
3. DRS014147_Alpha_toxin
4. VAT12_Alpha_toxin
5. RVDL_ALI_Alpha_toxin
340 350 360 370 380 390 400 410 420 430 441
Consensus
GYSEWDWKWVDEKFGYLFKNSYDALTSRKLGGIIKGSFTNINGTKIVIREGKEIPLPDKKRRGKRSVDSLDARLQNEGIRIENIETQDVPGFRLNSITYNDKKIDIN*
Identity
1. DSM_7534_Alpha_toxin
2. P1044_Alpha_toxin
3. DRS014147_Alpha_toxin
4. VAT12_Alpha_toxin
5. RVDL_ALI_Alpha_toxin

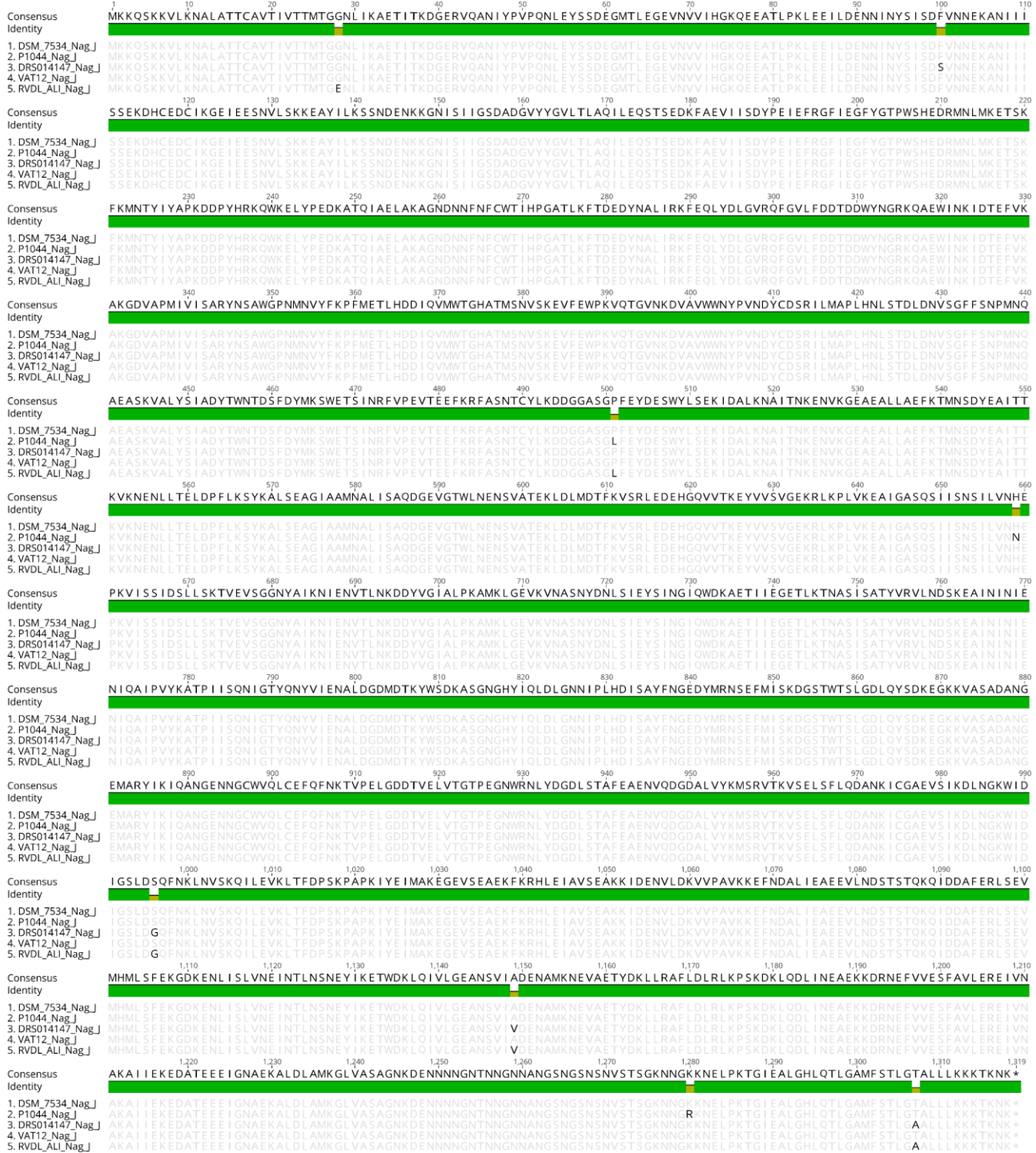
B


Consensus
Identity
1. DSM_7534_Nan_A_Sialidase
2. P1044_Nan_A_Sialidase
3. DRS014147_Nan_A_Sialidase
4. VAT12_Nan_A_Sialidase
5. RVDL_ALI_Nan_A_Sialidase

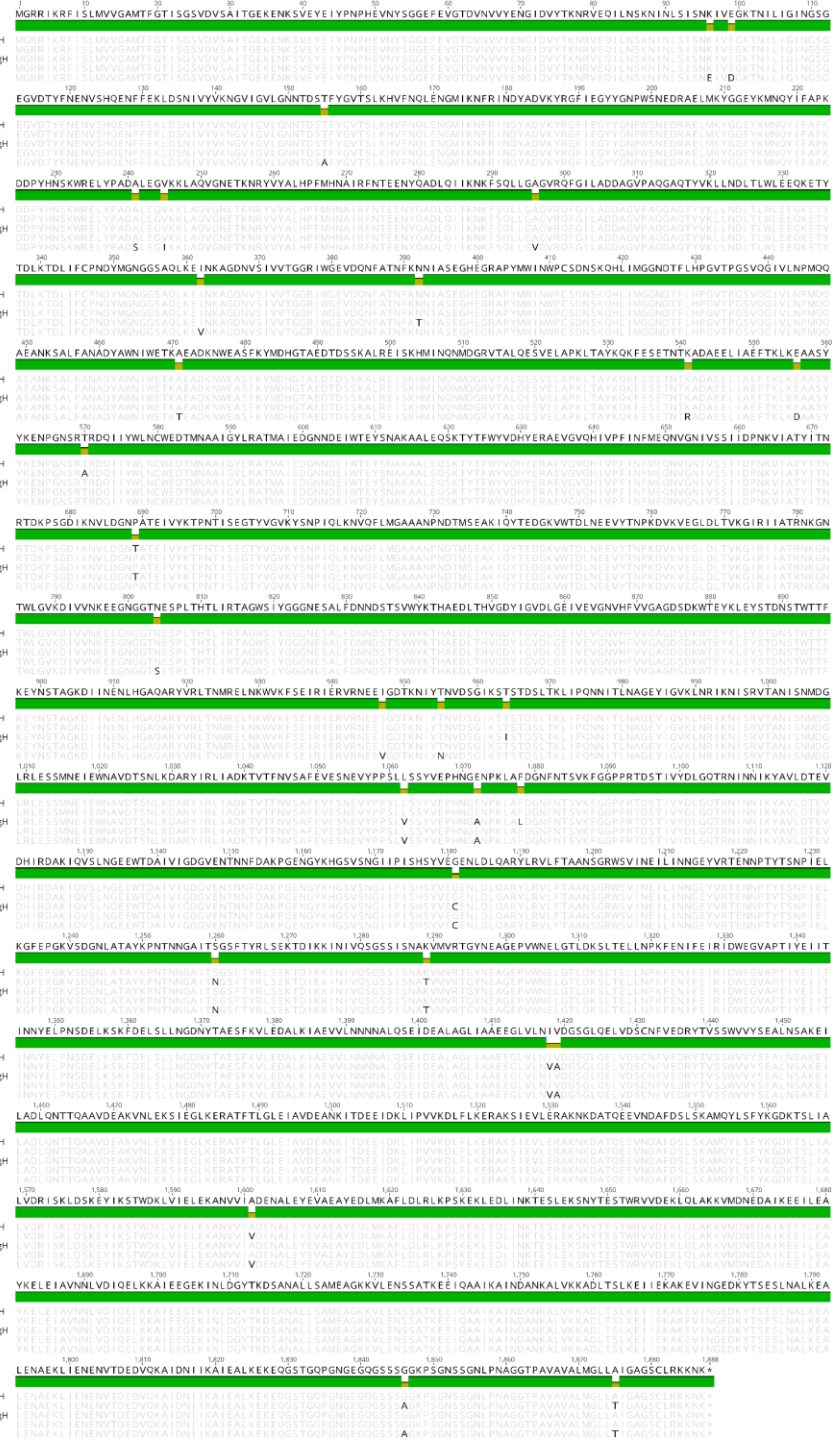
C


1 10 20 30 40 50 60 70 80 90
Consensus
MSAKKERLDILLVNKGIFTSRERAKTNIMAGKIFVDGHRVDKAGEKVNIDADIIFKGQEIPYVSRGGLKLEKAMKEFDINLEERVCMDIG
Identity
1. DSM_7534_Haemolysin_A
2. P1044_Haemolysin_A
3. DRS014147_Haemolysin_A
4. VAT12_Haemolysin_A
5. RVDL_ALI_Haemolysin_A
100 110 120 130 140 150 160 170 180
Consensus
ASTGGFTDCMLQNGARKVFSVDVGYGQFAWKLRTDDRVVCMERTNIRYVTPEDIGEKLDFASIDVSFISLKKIMPATLNLLKDNGEVVAL
Identity
1. DSM_7534_Haemolysin_A
2. P1044_Haemolysin_A
3. DRS014147_Haemolysin_A
4. VAT12_Haemolysin_A
5. RVDL_ALI_Haemolysin_A
190 200 210 220 230 240 250 260 270
Consensus
IKPQFEAGREKVGKKGVVRDINVHKEVVTNIVEFLISENINIIGVSYSPIKGPEGNIEYLVYFTKDKEKESNFTMEDIDRVVEASHEIL*
Identity
1. DSM_7534_Haemolysin_A
2. P1044_Haemolysin_A
3. DRS014147_Haemolysin_A
4. VAT12_Haemolysin_A
5. RVDL_ALI_Haemolysin_A

D


Consensus
Identity
1. DSM_7534_Nag_J
2. P1044_Nag_J
3. DRS014147_Nag_J
4. VAT12_Nag_J
5. RVDL_ALI_Nag_J

E


Consensus
Identity
1. DSM_7534_NagH
2. P1044_NagH
3. DRS0147_NagH
4. VAT12_NagH
5. RVDL_ALI_NagH