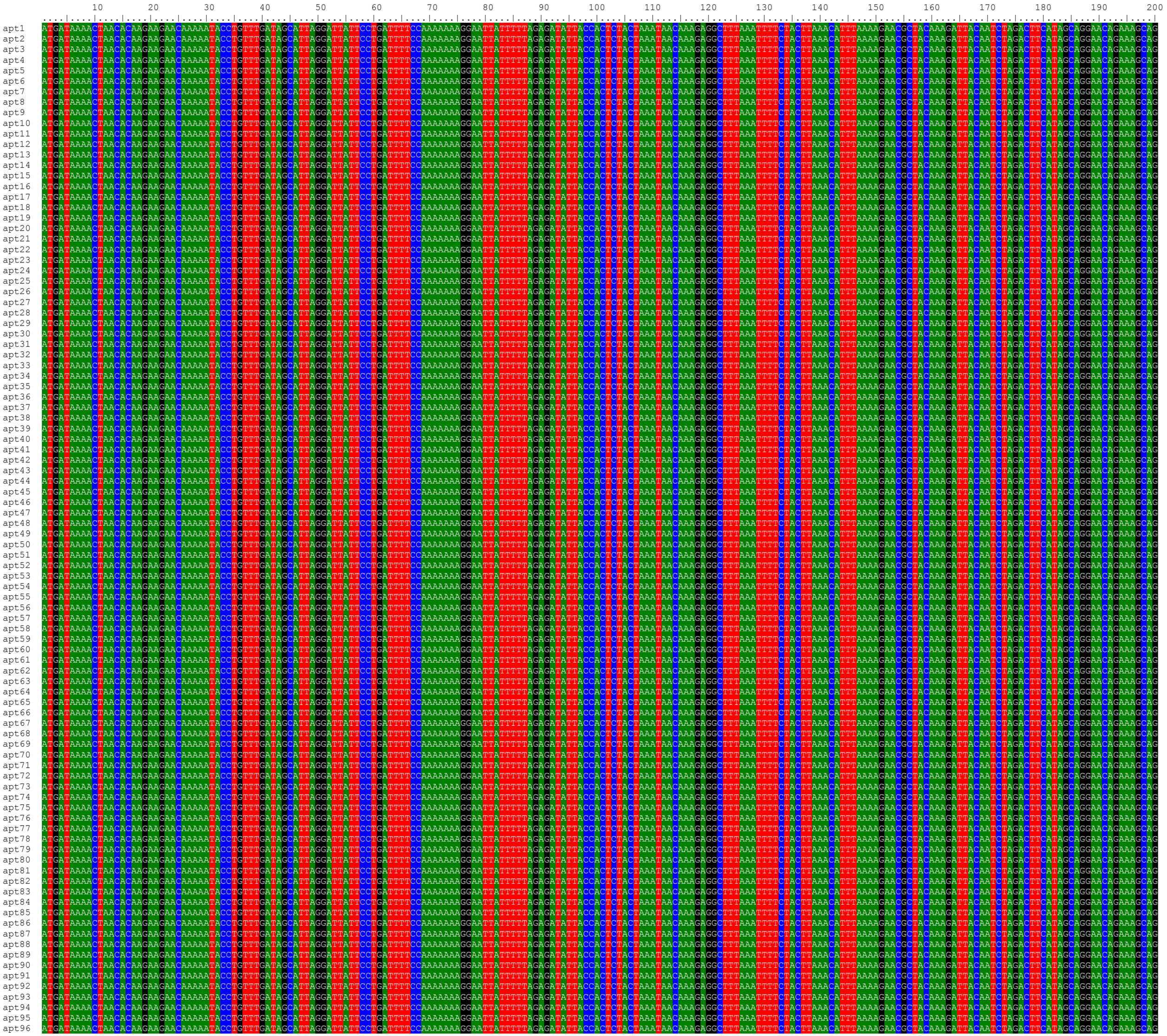
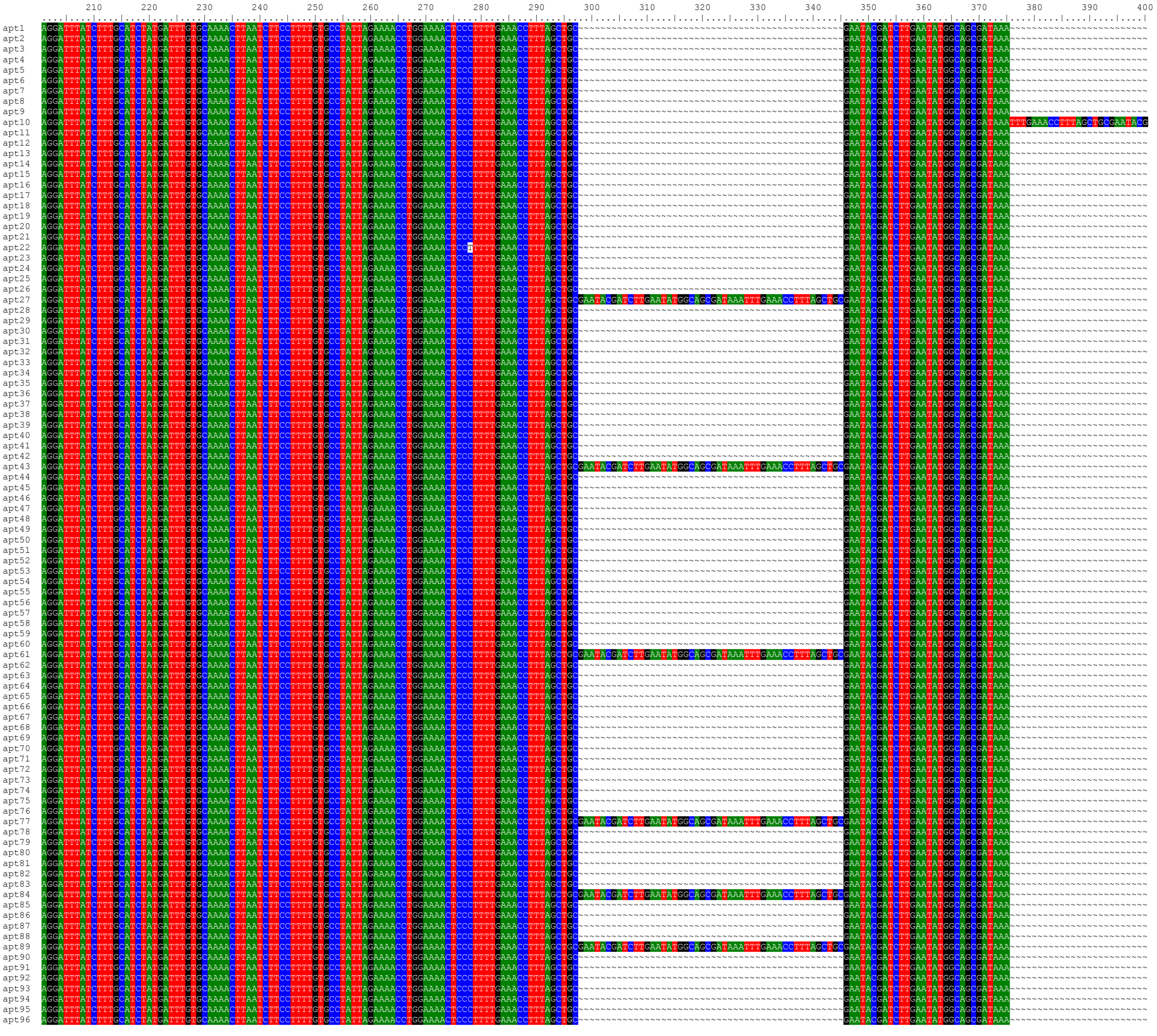
Alignment of *apt* sequences from 96 single colony isolates

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Predicted protein sequence alignment of *apt* from 96 single colony isolates

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apt2_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
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apt4_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt5_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt6_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt7_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt8_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt9_translation    MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt10_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt11_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
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apt15_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt16_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt17_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt18_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt19_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt20_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLITTGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt21_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt22_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLLF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt23_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt24_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt25_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt26_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt27_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt28_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt29_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt30_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt31_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt32_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt33_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt34_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt35_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt36_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt37_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt38_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt39_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt40_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt41_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt42_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt43_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt44_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt45_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt46_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt47_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDVFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt48_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt49_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt50_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt51_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt52_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt53_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt54_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt55_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt56_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt57_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVAACFLMNLKDLNGA
apt58_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt59_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt60_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt61_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt62_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt63_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt64_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt65_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVAACFLMNLKDLNGA
apt66_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt67_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVAACFLMNLKDLNGA
apt68_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt69_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt70_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt71_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt72_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt73_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt74_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt75_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt76_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt77_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt78_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt79_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt80_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt81_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt82_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVAACFLMNLKDLNGA
apt83_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt84_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt85_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt86_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt87_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt88_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt89_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPFETFSCEYDLEYGSDKFETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt90_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt91_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt92_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt93_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQNARVLLVDDLIATGGTANARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt94_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLIATGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt95_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLITTGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
apt96_translation   MIKLTQEEQKYLFDSIRIIPDFPKKGIIFRDITTLLNNKEALNFLLKHLKERYKDYNLDFIAGTESRGFIFASMICAKLNLPFVPIRKPGKLPF----------------ETFSCEYDLEYGSDKVELHKDAFKNIQ-----------------NARVLLVDDLITTGGTAIASYELIQKAGAKCVEACFLMNLKDLNGA
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                                  210
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apt2_translation          NKLEKLTSVYSVLEI
apt3_translation          NKLEKLTSVYSVLEI
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apt6_translation          NKLEKLTSVYSVLEI
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