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Newire, EA; Ahmed, SF; House, B; Valiente, E; Pimentel, G (2013) Detection of new SHV-12, SHV-5 and SHV-2a variants of extended spectrum Beta-lactamase in *Klebsiella pneumoniae* in Egypt. *Annals of clinical microbiology and antimicrobials*, 12 (1). p. 16. ISSN 1476-0711 DOI: <https://doi.org/10.1186/1476-0711-12-16>

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DOI: [10.1186/1476-0711-12-16](https://doi.org/10.1186/1476-0711-12-16)

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Additional File 1. SHV amino acid sequence variations of ESBL Egyptian isolates table.

	5	15	25	35	45	55
02-000429	MR Y T R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-016401	MR Y T R RCIIS	LLATLPLAVH	ASPQPLEQIK	L SESQLSGRV	GMIEMDLASG	RTLTAWRAD
03-002582	MR Y T R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
03-018785	MR Y T R RCIIS	LLATLPLAVH	ASPQPLEQIK	L SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-007724	MR Y T R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-007743	MR Y T R L CIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-007951	MR F V R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-008666	MR F V R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-013906	MR F V R RCIIS	LLATLPLAVH	ASPQPLEQIK	L SESQLSGRV	GMIEMDLASG	RTLTAWRAD
01-018867	MR F V R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
03-021322	MR F V R RCIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
SHV-12 GB	MR Y T R L CIIS	LLATLPLAVH	ASPQPLEQIK	Q SESQLSGRV	GMIEMDLASG	RTLTAWRAD
SHV-5 GB H	MR Y T R L CIIS	LLATLPLAVH	ASPQPLEQIK	L SESQLSGRV	GMIEMDLASG	RTLTAWRAD
SHV-2a GB	MR Y T R L CIIS	LLATLPLAVH	ASPQPLEQIK	L SESQLSGRV	GMIEMDLASG	RTLTAWRAD
	65	75	85	95	105	115
02-000429	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-016401	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
03-002582	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
03-018785	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-007724	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-007743	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-007951	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-008666	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-013906	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
01-018867	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
03-021322	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
SHV-12 GB	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
SHV-5 GB H	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA
SHV-2a GB	RFPMMSTFKV	VLCGAVLARV	DAGDEQLERK	IHYRQQDLVD	YSPVSEKHLA	DGMTVGELCA

	125	135	145	155	165	175
02-000429	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-016401	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
03-002582	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
03-018785	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-007724	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-007743	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-007951	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-008666	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-013906	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
01-018867	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
03-021322	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
SHV-12 GB	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
SHV-5 GB H	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA
SHV-2a GB	AAITMSDNSA	ANLLLATVGG	PAGLTAFLRQ	IGDNVTRLDR	WETELNEALP	GDARDTTTPA

	185	195	205	215	225	235
02-000429	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-016401	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
03-002582	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
03-018785	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-007724	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-007743	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-007951	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-008666	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-013906	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
01-018867	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
03-021322	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
SHV-12 GB	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
SHV-5 GB H	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG
SHV-2a GB	SMAATLRKLL	TSQRLSARSQ	RQLLQWMVDD	RVAGPLIRSV	LPAGWFIADK	TGASKRGARG

	245	255	265	275	285
02-000429	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-016401	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
03-002582	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
03-018785	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-007724	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-007743	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-007951	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-008666	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-013906	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
01-018867	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
03-021322	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
SHV-12 GB	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
SHV-5 GB H	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR
SHV-2a GB	IVALLGPNNK	AERIVVIYLR	DTPASMAERN	QQIAGIGAAL	IEHWQR