

INFORME DE BÚSQUEDA DE PATENTES				
N° de solicitud: NC2016/0004186 Fechas para la determinación del estado de la técnica: 16/11/2016 y 05/08/2014				
CRITERIOS PARA LA BÚSQUEDA (Anexar pantallazo o reporte en PDF, junto con los boléanos utilizados*. Para el caso de secuencias, anexar alineamientos)				
PALABRAS CLAVE UTILIZADAS		CMV OR cytomegalovirus AND pentam*_complex AND method?		
CLASIFICACIONES UTILIZADAS PARA LA BÚSQUEDA		CIP: A61K 39/245, A61K 39/12.		
DOCUMENTOS CONSIDERADOS RELEVANTES (documentos patentes, literatura no patente, etc...)				
Informes/Base de datos	N° de solicitud/ Autor**	Fecha de Publicación/Presentación (DD/MM/AAAA)	Reiv. afectadas (Con indicación, si procede, de las partes relevantes o números de secuencias)	Categorías especiales de los documentos citados***
SIPI	CO 12122672	23/07/2002	-	A
	CO 14048381	06/03/2014	-	A
	CO 15098495	29/04/2015	2-4 y 7-10	X
ISA/IPEA (****) EPO	WO2012051211	19/04/2012		A
	WO2014005959	09/01/2014	1-2 5-6	X Y
	WO2012106377	09/08/2012	-	A
	WO2014068001	08/05/2014	-	
	Freed D C, 2013	2013	-	
	Wussow F, 2013	2013	-	
	Tang X C, 2011	2011	-	
	Tong-Ming Fu, 2014	2014	-	
	Macagno Annalisa, 2010	2010	-	
	RYCKMAN BRENT J, 2008	2008	-	
USPTO	US2002076813	20/06/2002	5-6	Y
	US2015359879	17/12/2015	-	A
	US2011200633	18/08/2011	-	
	WO2012034025	15/03/2012	-	
	WO2013006842	10/01/2013	-	
	US5244805	14/09/1993	-	
Patent Lens	SEQ ID NO: 59 CO 15098495	29/04/2015	100% (SEQ ID NO:18) 99,43% (SEQ ID NO: 67)	X
NCBI	FJ616285.1	09/05/2013	-	A
	GU179289.1	09/05/2013	-	
Google Academico	Dargan DJ, et al, 2010	06/2010	-	A
	Bradley A. J, et al, 2009	10/2009	-	
	Dolan A, et al, 2004	05/2005	-	
*** Categorías especiales de documentos citados:				
“A” documento que define el estado general de la técnica no considerado como particularmente relevante. “E” solicitud de patente o patente anterior pero publicada en la fecha de presentación internacional o en fecha posterior. “P” documento publicado antes de la fecha de presentación internacional pero con posterioridad a la fecha de prioridad reivindicada.		“X” documento particularmente relevante; la invención reivindicada no puede considerarse nueva o que implique una actividad inventiva por referencia al documento aisladamente considerado. “Y” documento particularmente relevante; la invención reivindicada no puede considerarse que implique una actividad inventiva cuando el documento se asocia a otro u otros documentos de la misma naturaleza, cuya combinación resulta evidente para un experto en la materia.		
**** Indicar entre paréntesis la Autoridad que realizó la búsqueda o el informe preliminar Ejs: EPO, JP, INAPI.				

Literatura no patente **Se incluye entre otros, toda la referencia de la literatura no patente.	Dolan A1, Cunningham C, Hector RD, Hassan-Walker AF, Lee L, Addison C, Dargan DJ, McGeoch DJ, Gatherer D, Emery VC, Griffiths PD, Sinzger C, McSharry BP, Wilkinson GW, Davison AJ. Genetic content of wild-type human cytomegalovirus. J Gen Virol. 2004 May;85(Pt 5):1301-12.
	Amanda J. Bradley,1,† Nell S. Lurain,2 Peter Ghazal,3 Urmi Trivedi,4 Charles Cunningham,1 Katarina Baluchova,1 Derek Gatherer,1 Gavin W. G. Wilkinson,5 Derrick J. Dargan,1 and Andrew J. Davison. High-throughput sequence analysis of variants of human cytomegalovirus strains Towne and AD169. J Gen Virol. 2009 Oct; 90(Pt 10): 2375–2380. doi: 10.1099/vir.0.013250-0
	Dargan DJ1, Douglas E, Cunningham C, Jamieson F, Stanton RJ, Baluchova K, McSharry BP, Tomasec P, Emery VC, Percivalle E, Sarasini A, Gerna G, Wilkinson GW, Davison AJ. Sequential mutations associated with adaptation of human cytomegalovirus to growth in cell culture. J Gen Virol. 2010 Jun;91(Pt 6):1535-46. doi: 10.1099/vir.0.018994-0.
	Pentameric complex of viral glycoprotein H is the primary target for potent neutralization by a human cytomegalovirus vaccine Authors:Freed D C, Tang Q, Tang A, Li F, He X, Huang Z, Meng W, Xia L, Finnefrock A C, Durr E, Espeseth A S, Casimiro D R, Zhang N, Shiver J W, Wang D, An Z, T-M Fu Publication data:Proceedings of the National Academy of Sciences, 20131217 National Academy of Sciences Source info:Vol: 110, Nr: 51, Page(s): E4997 - E5005
	A Vaccine Based on the Rhesus Cytomegalovirus UL128 Complex Induces Broadly Neutralizing Antibodies in Rhesus Macaques Authors:Wussow F, Yue Y, Martinez J, Deere J D, Longmate J, Herrmann A, Barry P A, Diamond D J Publication data:Journal of Virology, 20130201 American Society for Microbiology Source info:Vol: 87, Nr: 3, Page(s): 1322 - 1332
	Baculovirus-Produced Influenza Virus-like Particles in Mammalian Cells Protect Mice from Lethal Influenza Challenge Authors:Tang X C, Lu H R, Ross T M Publication data:VIRAL IMMUNOLOGY, 20110810 MARY ANN LIEBERT, INC., NEW YORK, US Source info:Vol: 24, Nr: 4, Page(s): 311 - 319
	Progress on pursuit of human cytomegalovirus vaccines for prevention of congenital infection and disease Authors:Tong-Ming Fu, Zhiqiang An, Dai Wang Publication data:Vaccine, 20140501 Elsevier Source info:Vol: 32, Nr: 22, Page(s): 2525 - 2533
	Isolation of Human Monoclonal Antibodies That Potently Neutralize Human Cytomegalovirus Infection by Targeting Different Epitopes on the gH/gL/UL128-131A Complex Authors:Macagno Annalisa, Bernasconi Nadia L, Vanzetta Fabrizia, Dander Erica, Sarasini Antonella, Revello Maria Grazia, Gerna Giuseppe, Sallusto Federica, Lanzavecchia Antonio Publication data:JOURNAL OF VIROLOGY, 20100115 THE AMERICAN SOCIETY FOR MICROBIOLOGY, US Source info:Vol: 84, Nr: 2, Page(s): 1005 - 1013

	Characterization of the human cytomegalovirus gH/gL/UL128-131 complex that mediates entry into epithelial and endothelial cells Authors: RYCKMAN BRENT J, ET AL Publication data: Journal of virology (online), 20080101 American Society for Microbiology, US Source info: Vol: 82, Nr: 1, Page(s): 60 - 70
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Fecha del reporte de búsqueda:	07/02/2018
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Alineamiento completo entre la SEQ ID NO: 18 de la solicitud y la SEQ ID NO: 59 del documento D1

CLUSTAL multiple sequence alignment by MUSCLE (3.8)

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SEQ ID NO 18      TTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGC
CO 15098495 59    TTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACGTCAAAGGGC
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SEQ ID NO 18      GAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGTTTTT
CO 15098495 59    GAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGTTTTT
*****

SEQ ID NO 18      TGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCTAAAGGGAGCCCCGATTTAGAG
CO_15098495_59    TGGGGTCGAGGTGCCGTAAAGCACTAAATCGGAACCTAAAGGGAGCCCCGATTTAGAG
*****

SEQ ID NO 18      CTTGACGGGGAAGCCGGCGAAGTGGCGAGAAAGGAAGGAAGAAAGCGAAAGGAGCGG
CO 15098495 59    CTTGACGGGGAAGCCGGCGAAGTGGCGAGAAAGGAAGGAAGAAAGCGAAAGGAGCGG
*****

SEQ ID NO 18      GCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGC
CO_15098495_59    GCGCTAGGGCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGCGC
*****

SEQ ID NO 18      TTAATGCGCCGTACAGGGCGCGTCCATTGCGCATTCAGGCTGCGCAACTGTTGGGAAGG
CO_15098495_59    TTAATGCGCCGTACAGGGCGCGTCCATTGCGCATTCAGGCTGCGCAACTGTTGGGAAGG
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SEQ ID NO 18      GCGATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTGCAAG
CO_15098495_59    GCGATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTGCAAG
*****

SEQ ID NO 18      GCGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACGTTGTAAAACGACGGCCAG
CO_15098495_59    GCGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACGTTGTAAAACGACGGCCAG
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SEQ ID NO 18      TGCATAGACCAGCCGCTAACCTGGCAAAATCGGTTACGGTTGAGTAATAAATGGATGCC
CO 15098495 59    TGCATAGACCAGCCGCTAACCTGGCAAAATCGGTTACGGTTGAGTAATAAATGGATGCC
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SEQ ID NO 18      CTGCGTAAGCGGGTGTGGCGGACAATAAAGTCTTAACTGAACAAAATAGATCTAACT
CO_15098495_59    CTGCGTAAGCGGGTGTGGCGGACAATAAAGTCTTAACTGAACAAAATAGATCTAACT
*****

SEQ ID NO 18      ATGACAATAAAGTCTTAACTAGACAGAATAGTTGTAACTGAAATCAGTCCAGTTATGC
CO_15098495_59    ATGACAATAAAGTCTTAACTAGACAGAATAGTTGTAACTGAAATCAGTCCAGTTATGC
*****

SEQ ID NO 18      TGTGAAAAAGCATACTGGACTTTTGTATGGCTAAAGCAAACCTTTCATTTCTGAAGTG
CO 15098495 59    TGTGAAAAAGCATACTGGACTTTTGTATGGCTAAAGCAAACCTTTCATTTCTGAAGTG
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SEQ ID NO 18      CAAATTGCCCGTCGTATTAAAGAGGGGCGTGGCCAAGGGCATGGTAAAGACTATATTCGC
CO_15098495_59    CAAATTGCCCGTCGTATTAAAGAGGGGCGTGGCCAAGGGCATGGTAAAGACTATATTCGC
*****

SEQ ID NO 18      GCGGTTGTGACAATTTACCGAACAATCCGCGGCGGGAAGCCGATCTCGGCTGAACGA
CO_15098495_59    GCGGTTGTGACAATTTACCGAACAATCCGCGGCGGGAAGCCGATCTCGGCTGAACGA
*****

SEQ ID NO 18      ATTGTTAGTGGCGGTACTTGGGTCGATATCAAAGTGCATCACTTCTCCCGTATGCCCA
CO 15098495 59    ATTGTTAGTGGCGGTACTTGGGTCGATATCAAAGTGCATCACTTCTCCCGTATGCCCA
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SEQ ID NO 18      ACTTTGTATAGAGGCCACTGCGGGATCGTCACCGTAATCTGCTTGACGCTAGATCACAT
CO_15098495_59    ACTTTGTATAGAGGCCACTGCGGGATCGTCACCGTAATCTGCTTGACGCTAGATCACAT
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SEQ_ID NO 18 CO 15098495_59	AAGCACCAAGCGCGTTGGCCTCATGCTTGAGGAGATTGATGAGCGCGGTGGCAATGCCCT AAGCACCAAGCGCGTTGGCCTCATGCTTGAGGAGATTGATGAGCGCGGTGGCAATGCCCT *****
SEQ_ID NO 18 CO_15098495_59	GCCTCCGGTGCTCGCCGGAGACTGCGAGATCATAGATATAGATCTCACTACGCGGCTGCT GCCTCCGGTGCTCGCCGGAGACTGCGAGATCATAGATATAGATCTCACTACGCGGCTGCT *****
SEQ_ID NO 18 CO 15098495_59	CAAACCTTGGGCAGAACGTAAGCCGCGAGAGCGCCAACAACCGCTTCTTGGTGCAAGGCAG CAAACCTTGGGCAGAACGTAAGCCGCGAGAGCGCCAACAACCGCTTCTTGGTGCAAGGCAG *****
SEQ_ID NO 18 CO_15098495_59	CAAGCGCGATGAATGTCTTACTACGGAGCAAGTCCCAGGTAATCGGAGTCCGGCTGAT CAAGCGCGATGAATGTCTTACTACGGAGCAAGTCCCAGGTAATCGGAGTCCGGCTGAT *****
SEQ_ID NO 18 CO_15098495_59	GTTGGGAGTAGGTGGCTACGTCTCCGAACCTACGACCGAAAAGATCAAGAGCAGCCGCA GTTGGGAGTAGGTGGCTACGTCTCCGAACCTACGACCGAAAAGATCAAGAGCAGCCGCA *****
SEQ_ID NO 18 CO_15098495_59	TGGATTGACTTGGTCAGGGCCGAGCCTACATGTGCGAATGATGCCATACTTGAGCCAC TGGATTGACTTGGTCAGGGCCGAGCCTACATGTGCGAATGATGCCATACTTGAGCCAC *****
SEQ_ID NO 18 CO_15098495_59	CTAACTTTGTTTTAGGGCGACTGCCCTGCTGCGTAACATCGTTGCTGCTGCGTAACATCG CTAACTTTGTTTTAGGGCGACTGCCCTGCTGCGTAACATCGTTGCTGCTGCGTAACATCG *****
SEQ_ID NO 18 CO_15098495_59	TTGCTGCTCCATAACATCAAACATCGACCCACGGCGTAACGCGCTTGTCTGCTGGATGCC TTGCTGCTCCATAACATCAAACATCGACCCACGGCGTAACGCGCTTGTCTGCTGGATGCC *****
SEQ_ID NO 18 CO_15098495_59	CGAGGCATAGACTGTACAAAAAAGAGTCATAACAAGCCATGAAAACCGCCACTGCGCCG CGAGGCATAGACTGTACAAAAAAGAGTCATAACAAGCCATGAAAACCGCCACTGCGCCG *****
SEQ_ID NO 18 CO_15098495_59	TTACCACCGCTGCGTTTCGGTCAAGGTTCTGGACCAGTTGCGTGAGCGCATACGCTACTTG TTACCACCGCTGCGTTTCGGTCAAGGTTCTGGACCAGTTGCGTGAGCGCATACGCTACTTG *****
SEQ_ID NO 18 CO 15098495_59	CATTACAGTTTACGAACCGAACAGGCTTATGTCAACTGGGTTTGTGCCTTCATCCGTTTC CATTACAGTTTACGAACCGAACAGGCTTATGTCAACTGGGTTTGTGCCTTCATCCGTTTC *****
SEQ_ID NO 18 CO_15098495_59	CACGGTGTGCGTCAACCGGCAACCTTGGGCAGCAGCGAAGTCGAGGCATTTCTGTCCTGG CACGGTGTGCGTCAACCGGCAACCTTGGGCAGCAGCGAAGTCGAGGCATTTCTGTCCTGG *****
SEQ_ID NO 18 CO_15098495_59	CTGGCGAACGAGCGCAAGGTTTCGGTCTCCACGCATCGTCAGGCATTGGCGGCCTTGCTG CTGGCGAACGAGCGCAAGGTTTCGGTCTCCACGCATCGTCAGGCATTGGCGGCCTTGCTG *****
SEQ_ID NO 18 CO 15098495_59	TTCTTCTACGGCAAGGTGCTGTGCACGGATCTGCCCTTGCTTACGAGATCGGTAGACCT TTCTTCTACGGCAAGGTGCTGTGCACGGATCTGCCCTTGCTTACGAGATCGGTAGACCT *****
SEQ_ID NO 18 CO_15098495_59	CGGCCGTGCGCGCGCTTGCCGGTGGTGTGACCCCGGATGAAGTGGTTCGCATCCTCGGT CGGCCGTGCGCGCGCTTGCCGGTGGTGTGACCCCGGATGAAGTGGTTCGCATCCTCGGT *****
SEQ_ID NO 18 CO_15098495_59	TTTCTGAAGGCGAGCATCGTTTGTTCGCCAGGACTCTAGCTATAGTTCTAGTGGTTGG TTTCTGAAGGCGAGCATCGTTTGTTCGCCAGGACTCTAGCTATAGTTCTAGTGGTTGG *****
SEQ_ID NO 18 CO 15098495_59	CTACAGCTTTGTTTGTACTATCAACAGGTTGAACTGCTGATCAACAGATCCTCTACGCGG CTACAGCTTTGTTTGTACTATCAACAGGTTGAACTGCTGATCAACAGATCCTCTACGCGG *****
SEQ_ID NO 18 CO_15098495_59	CCGCGGTACCATAAATTCGTATAGCATACATTATACGAAGTTATCTGGTTTAAACGTACC CCGCGGTACCATAAATTCGTATAGCATACATTATACGAAGTTATCTGGTTTAAACGTACC *****
SEQ_ID NO 18 CO 15098495_59	CGTAGTGGCTATGGCAGGGCTTGCCGCCCCGACGTTGGCTGCGAGCCCTGGGCCTTCACC CGTAGTGGCTATGGCAGGGCTTGCCGCCCCGACGTTGGCTGCGAGCCCTGGGCCTTCACC *****
SEQ_ID NO 18 CO_15098495_59	CGAACTTGGGGGTTGGGGTGGGGAAAAGGAAGAAACGCGGGCGTATTGGTCCCAATGGGG CGAACTTGGGGGTTGGGGTGGGGAAAAGGAAGAAACGCGGGCGTATTGGTCCCAATGGGG *****
SEQ_ID NO 18 CO_15098495_59	TCTCGTGGGGTATCGACAGAGTGCCAGCCCTGGGACCGAACCCCGCGTTTATGAACAAA TCTCGTGGGGTATCGACAGAGTGCCAGCCCTGGGACCGAACCCCGCGTTTATGAACAAA *****
SEQ_ID NO 18	CGACCCAACACCCGTGCGCTTTTATCTGTCTTTTATTGCCGTCATAGCGGGGTTCCCTT

CO_15098495_59	CGACCCAACACCCGTGCGTTTTATTCTGTCTTTTTATTGCCGTCATAGCGGGTTCCTT *****
SEQ_ID NO 18 CO_15098495_59	CCGGTATTGTCTCCTTCCGTGTTTCAGTTAGCCTCCCCATCTCCCGGTACCGCATGCTA CCGGTATTGTCTCCTTCCGTGTTTCAGTTAGCCTCCCCATCTCCCGGTACCGCATGCTA *****
SEQ_ID NO 18 CO_15098495_59	TGCATCAGCTGCTAGCACCATGGCTCGAGATCCCGGTGATCAAGTCTTCGTGAGTGAT TGCATCAGCTGCTAGCACCATGGCTCGAGATCCCGGTGATCAAGTCTTCGTGAGTGAT *****
SEQ_ID NO 18 CO_15098495_59	TGTAATAAAATGTAATTTACAGTATAGTATTTTAATTAATATACAAATGATTGATAAT TGTAATAAAATGTAATTTACAGTATAGTATTTTAATTAATATACAAATGATTGATAAT *****
SEQ_ID NO 18 CO_15098495_59	AATTCCTATTTAACATAATATATTGTGTTGGGTGAATTAAGGTCCGTATACTAGTAT AATTCCTATTTAACATAATATATTGTGTTGGGTGAATTAAGGTCCGTATACTAGTAT *****
SEQ_ID NO 18 CO_15098495_59	CGATTGCGGACCTACTCCGGAATATTAATAGATCATGGAGATAATAAAAATGATAACCAT CGATTGCGGACCTACTCCGGAATATTAATAGATCATGGAGATAATAAAAATGATAACCAT *****
SEQ_ID NO 18 CO_15098495_59	CTCGCAATAAAATAGTATTTTACTGTTTTCGTAACAGTTTGTAAATAAAAAACCTATA CTCGCAATAAAATAGTATTTTACTGTTTTCGTAACAGTTTGTAAATAAAAAACCTATA *****
SEQ_ID NO 18 CO_15098495_59	AATATTCGCGATTATTTCATACCGTCCCACCATCGGGCGCGGATCCGCCACCATGCGTCCC AATATTCGCGATTATTTCATACCGTCCCACCATCGGGCGCGGATCCGCCACCATGCGTCCC *****
SEQ_ID NO 18 CO_15098495_59	GGCCTGCCCCCTACCTGATCGTGCTGGCTGTGTGCTGCTGCCACCTCCTGTCTCTCC GGCCTGCCCCCTACCTGATCGTGCTGGCTGTGTGCTGCTGCCACCTCCTGTCTCTCC *****
SEQ_ID NO 18 CO_15098495_59	CGTTACGGTGCTGAGGCTATCTCCGAGCCCTGGACAAGGCTTCCACCTCCTGTCTGAAC CGTTACGGTGCTGAGGCTATCTCCGAGCCCTGGACAAGGCTTCCACCTCCTGTCTGAAC *****
SEQ_ID NO 18 CO_15098495_59	ACCTACGGTCGTCTCTATCCGTTTCCCTGCGCGAGAACACCACCCAGTGCACCTACAACCTCC ACCTACGGTCGTCTCTATCCGTTTCCCTGCGCGAGAACACCACCCAGTGCACCTACAACCTCC *****
SEQ_ID NO 18 CO_15098495_59	TCCCTGCGCAACTCCACCGTCGTCCGCGAGAACGCTATCTCCTTCAACTTCTTCCAGTCC TCCCTGCGCAACTCCACCGTCGTCCGCGAGAACGCTATCTCCTTCAACTTCTTCCAGTCC *****
SEQ_ID NO 18 CO_15098495_59	TACAACCACTACTACGTGTTCCACATGCCCCGTTGCCTGTTGCTGCTGCCCTGGCTGAG TACAACCACTACTACGTGTTCCACATGCCCCGTTGCCTGTTGCTGCTGCCCTGGCTGAG *****
SEQ_ID NO 18 CO_15098495_59	CAGTTCTCTGAACAGGTGGACCTGACCGAGACTCTCGAGCGTTACCAGCAGCGTCTGAAC CAGTTCTCTGAACAGGTGGACCTGACCGAGACTCTCGAGCGTTACCAGCAGCGTCTGAAC *****
SEQ_ID NO 18 CO_15098495_59	ACTTACGCTCTGGTGTCCTCAAGGACCTGGCTTCCTACCGTTCCCTCAGCCAGCAGCTGAAG ACTTACGCTCTGGTGTCCTCAAGGACCTGGCTTCCTACCGTTCCCTCAGCCAGCAGCTGAAG *****
SEQ_ID NO 18 CO_15098495_59	GCTCAGGACTCCCTGGGCGAGCAGCCACCACTGTGCCTCCCCCTATCGACCTGTCCATC GCTCAGGACTCCCTGGGCGAGCAGCCACCACTGTGCCTCCCCCTATCGACCTGTCCATC *****
SEQ_ID NO 18 CO_15098495_59	CCCCACGTGTGGATGCCCCCCAGACCACTCCTCACGGCTGGACCGAGTCCCACACCACC CCCCACGTGTGGATGCCCCCCAGACCACTCCTCACGGCTGGACCGAGTCCCACACCACC *****
SEQ_ID NO 18 CO_15098495_59	TCCGGACTGCACCGTCCCCACTTCAACCAGACCTGCATCCTGTTTCGACGGTTCACGACCTG TCCGGACTGCACCGTCCCCACTTCAACCAGACCTGCATCCTGTTTCGACGGTTCACGACCTG *****
SEQ_ID NO 18 CO_15098495_59	CTGTTCTCCACCGTGACCCCTGCCTGCACAGGGCTTCTACCTCATCGACGAGCTGCGT CTGTTCTCCACCGTGACCCCTGCCTGCACAGGGCTTCTACCTCATCGACGAGCTGCGT *****
SEQ_ID NO 18 CO_15098495_59	TACGTGAAGATCACCTGACCGAGGATTTCTTCGTGGTCACCGTGTCCATCGACGACGAC TACGTGAAGATCACCTGACCGAGGATTTCTTCGTGGTCACCGTGTCCATCGACGACGAC *****
SEQ_ID NO 18 CO_15098495_59	ACCCCCATGCTGTGATCTTCGGTCACCTCCCCCGTGTGCTGTTCAAGGCTCCCTACCAG ACCCCCATGCTGTGATCTTCGGTCACCTCCCCCGTGTGCTGTTCAAGGCTCCCTACCAG *****
SEQ_ID NO 18 CO_15098495_59	CGTGACAACCTTCATCTGCGTCAGACCGAGAAGCACGAGCTGCTGGTGCTGGTCAAGAAG CGTGACAACCTTCATCTGCGTCAGACCGAGAAGCACGAGCTGCTGGTGCTGGTCAAGAAG

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SEQ ID NO 18      GACCAGCTGAACCGTCACTCTTACCTGAAGGACCCCGACTTCCTGGACGCTGCTCTGGAC
CO_15098495_59   GACCAGCTGAACCGTCACTCTTACCTGAAGGACCCCGACTTCCTGGACGCTGCTCTGGAC
*****

SEQ ID NO 18      TTCAACTACCTGGACCTGTCCGCTCTGCTGAGGAACCTCTCCACCGTTACGCTGTGGAC
CO_15098495_59   TTCAACTACCTGGACCTGTCCGCTCTGCTGAGGAACCTCTCCACCGTTACGCTGTGGAC
*****

SEQ ID NO 18      GTGCTGAAGTCCGGTCGTTGCCAGATGCTGGACCGTCGTACCGTCGAGATGGCTTTTCGCT
CO_15098495_59   GTGCTGAAGTCCGGTCGTTGCCAGATGCTGGACCGTCGTACCGTCGAGATGGCTTTTCGCT
*****

SEQ ID NO 18      TACGCCCTGGCTCTGTTTCGCTGCTGCTCGTCAAGAAGAGGCTGGCGCTCAGGTGTCCGTG
CO_15098495_59   TACGCCCTGGCTCTGTTTCGCTGCTGCTCGTCAAGAAGAGGCTGGCGCTCAGGTGTCCGTG
*****

SEQ ID NO 18      CCCCCTGCTCTGGACCGTCAGGCTGCTCTGCTGCAGATCCAAGAGTTCATGATCACTTGC
CO_15098495_59   CCCCCTGCTCTGGACCGTCAGGCTGCTCTGCTGCAGATCCAAGAGTTCATGATCACTTGC
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SEQ ID NO 18      CTGTCCCAGACCCCCCTCGTACCACCCTGCTGCTGTACCCACCGCTGTGGACCTGGCT
CO_15098495_59   CTGTCCCAGACCCCCCTCGTACCACCCTGCTGCTGTACCCACCGCTGTGGACCTGGCT
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SEQ ID NO 18      AAGCGTGCTCTGTGGACCCCAACCAGATCACCGACATCACCTCCCTCGTGCCTCTGGTG
CO_15098495_59   AAGCGTGCTCTGTGGACCCCAACCAGATCACCGACATCACCTCCCTCGTGCCTCTGGTG
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SEQ ID NO 18      TACATCCTGTCCAAGCAGAACCAGCAGCACCTGATCCCCAGTGGGCTCTGCGTCAGATC
CO_15098495_59   TACATCCTGTCCAAGCAGAACCAGCAGCACCTGATCCCCAGTGGGCTCTGCGTCAGATC
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SEQ ID NO 18      GCTGACTTCGCTCTGAAGCTGCACAAGACCCACCTGGCTTCATTCTCAGCGCTTTTCGCT
CO_15098495_59   GCTGACTTCGCTCTGAAGCTGCACAAGACCCACCTGGCTTCATTCTCAGCGCTTTTCGCT
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SEQ ID NO 18      CGCCAAGAGCTGTACCTGATGGGTTCCTGGTGCACTCCATGCTGGTGACACACCAGAG
CO_15098495_59   CGCCAAGAGCTGTACCTGATGGGTTCCTGGTGCACTCCATGCTGGTGACACACCAGAG
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SEQ ID NO 18      CGTCGCGAGATCTTCATCGTGGAACCGGCTGTGCTCCCTGGCCGAGCTGTCCCACTTC
CO_15098495_59   CGTCGCGAGATCTTCATCGTGGAACCGGCTGTGCTCCCTGGCCGAGCTGTCCCACTTC
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SEQ ID NO 18      ACCCAGCTGTGGCTCACCCACACAGTACCTGTCCGACCTGTACACCCCTGTCTCC
CO_15098495_59   ACCCAGCTGTGGCTCACCCACACAGTACCTGTCCGACCTGTACACCCCTGTCTCC
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SEQ ID NO 18      TCTTCCGGTCGTCGTGACCACTCCCTGGAACGTCTGACCCGTCTGTTCCCGACGCTACC
CO_15098495_59   TCTTCCGGTCGTCGTGACCACTCCCTGGAACGTCTGACCCGTCTGTTCCCGACGCTACC
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SEQ ID NO 18      GTGCCTACCACCGTCGCTGCTCTGTCCATCCTGTCTACCATGCAGCCCTCCACCCTG
CO_15098495_59   GTGCCTACCACCGTCGCTGCTCTGTCCATCCTGTCTACCATGCAGCCCTCCACCCTG
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SEQ ID NO 18      GAAACCTTCCCCGACCTGTTCTGCCTGCCTCTGGGCGAGTCCTTCTCCGCTCTGACCGTG
CO_15098495_59   GAAACCTTCCCCGACCTGTTCTGCCTGCCTCTGGGCGAGTCCTTCTCCGCTCTGACCGTG
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SEQ ID NO 18      TCCGAGCAGGTGCTCTACGTGGTCACCAACAGTACCTGATCAAGGGCATCTCCTACCCC
CO_15098495_59   TCCGAGCAGGTGCTCTACGTGGTCACCAACAGTACCTGATCAAGGGCATCTCCTACCCC
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SEQ ID NO 18      GTGTCCACCACCGTCGTGGGCCAGTCCCTGATCATCACCAGACCGACTCCCAGACCAAG
CO_15098495_59   GTGTCCACCACCGTCGTGGGCCAGTCCCTGATCATCACCAGACCGACTCCCAGACCAAG
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SEQ ID NO 18      TGCGAGCTGACCCGTAACATGCACACCACTCACTCCATCACCCTGCTCTGAACATCTCC
CO_15098495_59   TGCGAGCTGACCCGTAACATGCACACCACTCACTCCATCACCCTGCTCTGAACATCTCC
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SEQ ID NO 18      CTCGAGAACTGCGCTTTTCTGCCAGTCCGCTCTGTTGGAGTACGACGACACTCAGGGTGTC
CO_15098495_59   CTCGAGAACTGCGCTTTTCTGCCAGTCCGCTCTGTTGGAGTACGACGACACTCAGGGTGTC
*****

SEQ ID NO 18      ATCAACATCATGTACATGCACGACTCCGACGACGTGCTGTTTCGCTCTGGACCCCTACAAC
CO_15098495_59   ATCAACATCATGTACATGCACGACTCCGACGACGTGCTGTTTCGCTCTGGACCCCTACAAC
*****

SEQ ID NO 18      GAGGTGGTGGTGCTCTCCCCCGTACCCACTACCTGATGCTGCTGAAGAACGGCACCCTG
CO_15098495_59   GAGGTGGTGGTGCTCTCCCCCGTACCCACTACCTGATGCTGCTGAAGAACGGCACCCTG
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SEQ ID NO 18 CO_15098495_59	CTGGAAGTGACCGACGTGGTGGTGGACGCTACCGACTCCGGCGCCGGAAGCGGCGGAGGG CTGGAAGTGACCGACGTGGTGGTGGACGCTACCGACTCCGGCGCCGGAAGCGGCGGAGGG *****
SEQ ID NO 18 CO_15098495_59	GGGTCTGGGGGGGAGGCAGCCACCACCATCACCACCACCATCACTAAGAATTCAAGCTT GGGTCTGGGGGGGAGGCAGCCACCACCATCACCACCACCATCACTAAGAATTCAAGCTT *****
SEQ ID NO 18 CO_15098495_59	GTCGAGAAGTACTAGAGGATCATAATCAGCCATACCACATTTGTAGAGGTTTACTTGCT GTCGAGAAGTACTAGAGGATCATAATCAGCCATACCACATTTGTAGAGGTTTACTTGCT *****
SEQ ID NO 18 CO_15098495_59	TTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTT TTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTT *****
SEQ ID NO 18 CO_15098495_59	GTTAACTTGTTTATTGTCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTC GTTAACTTGTTTATTGTCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTC *****
SEQ ID NO 18 CO_15098495_59	ACAAATAAAGCATTTTTTTCACCTGCTTCTAGTTGTGGTTGTCCAAACTCATCAATGTA ACAAATAAAGCATTTTTTTCACCTGCTTCTAGTTGTGGTTGTCCAAACTCATCAATGTA *****
SEQ ID NO 18 CO_15098495_59	TCTTATCATGCTCTGGATCTGATCACTGCTTGAGCCTAGAAGATCCGGCTGCTAACAAAGC TCTTATCATGCTCTGGATCTGATCACTGCTTGAGCCTAGAAGATCCGGCTGCTAACAAAGC *****
SEQ ID NO 18 CO_15098495_59	CCGAAAGGAAGCTGAGTTGGCTGCTGCCACCGCTGAGCAATAACTATCATAACCCCTAGG CCGAAAGGAAGCTGAGTTGGCTGCTGCCACCGCTGAGCAATAACTATCATAACCCCTAGG *****
SEQ ID NO 18 CO_15098495_59	GGCCTCTAAACGGGCTCTGAGGGGTTTTTTGCTGAAAGGAGGAAGTATATCCGGATCTGA GGCCTCTAAACGGGCTCTGAGGGGTTTTTTGCTGAAAGGAGGAAGTATATCCGGATCTGA *****
SEQ ID NO 18 CO_15098495_59	ACAGGAGGGACAGCTGATAGAAACAGAAGCCACTGGAGCACCTCAAAACACCATCATAC ACAGGAGGGACAGCTGATAGAAACAGAAGCCACTGGAGCACCTCAAAACACCATCATAC *****
SEQ ID NO 18 CO_15098495_59	ACTAAATCAGTAAGTTGGCAGCATCACCCGACGCACCTTGCGCCGAATAAATACCTGTGA ACTAAATCAGTAAGTTGGCAGCATCACCCGACGCACCTTGCGCCGAATAAATACCTGTGA *****
SEQ ID NO 18 CO_15098495_59	CGGAAGATCACTTCGCAGAATAAATAAATCCTGGTGCCCTGTTGATACCGGGAAGCCCT CGGAAGATCACTTCGCAGAATAAATAAATCCTGGTGCCCTGTTGATACCGGGAAGCCCT *****
SEQ ID NO 18 CO_15098495_59	GGGCCAACTTTTGGCGAAAATGAGACGTTGATCGGCACGTAAGAGGTTCCAACCTTCACC GGGCCAACTTTTGGCGAAAATGAGACGTTGATCGGCACGTAAGAGGTTCCAACCTTCACC *****
SEQ ID NO 18 CO_15098495_59	ATAATGAAATAAGATCACTACCGGCGTATTTTTTGAGTTATCGAGATTTTCAGGAGCTA ATAATGAAATAAGATCACTACCGGCGTATTTTTTGAGTTATCGAGATTTTCAGGAGCTA *****
SEQ ID NO 18 CO_15098495_59	AGGAAGCTAAATGGAGAAAAAATCACTGGATATACCACCGTTGATATATCCCAATGGC AGGAAGCTAAATGGAGAAAAAATCACTGGATATACCACCGTTGATATATCCCAATGGC *****
SEQ ID NO 18 CO_15098495_59	ATCGTAAAGAACATTTTGAGGCATTTTCAGTCAGTTGCTCAATGTACCTATAACCAGACCG ATCGTAAAGAACATTTTGAGGCATTTTCAGTCAGTTGCTCAATGTACCTATAACCAGACCG *****
SEQ ID NO 18 CO_15098495_59	TTACGCTGGATATTACGGCCTTTTTAAAGACCGTAAGAAAAATAAGCACAAGTTTATC TTACGCTGGATATTACGGCCTTTTTAAAGACCGTAAGAAAAATAAGCACAAGTTTATC *****
SEQ ID NO 18 CO_15098495_59	CGGCCTTTATTACATTTCTTGCCCGCCTGATGAATGCTCATCCGGAATTCGGTATGGCAA CGGCCTTTATTACATTTCTTGCCCGCCTGATGAATGCTCATCCGGAATTCGGTATGGCAA *****
SEQ ID NO 18 CO_15098495_59	TGAAAGACGGTGAGCTGGTGATATGGGATAGTGTTACCCCTTGTTACACCGTTTCCATG TGAAAGACGGTGAGCTGGTGATATGGGATAGTGTTACCCCTTGTTACACCGTTTCCATG *****
SEQ ID NO 18 CO_15098495_59	AGCAAATGAAACGTTTTTCATCGCTCTGGAGTGAATACCACGACGATTTCCGGCAGTTTC AGCAAATGAAACGTTTTTCATCGCTCTGGAGTGAATACCACGACGATTTCCGGCAGTTTC *****
SEQ ID NO 18 CO_15098495_59	TACACATATATTTCGAAGATGTGGCGTGTTACGGTGAAAACCTGGCCTATTTCCCTAAAG TACACATATATTTCGAAGATGTGGCGTGTTACGGTGAAAACCTGGCCTATTTCCCTAAAG *****

SEQ_ID_NO_18 GGTTTATTGAGAATATGTTTTTCGTCTCAGCCAATCCCTGGGTGAGTTTCACCAGTTTTG
CO_15098495_59 GGTTTATTGAGAATATGTTTTTCGTCTCAGCCAATCCCTGGGTGAGTTTCACCAGTTTTG

SEQ_ID_NO_18 ATTTAAACGTGGCCAATATGGACAACCTCTTCGCCCCCGTTTTACCATGGGCAAAATATT
CO_15098495_59 ATTTAAACGTGGCCAATATGGACAACCTCTTCGCCCCCGTTTTACCATGGGCAAAATATT

SEQ_ID_NO_18 ATACGCAAGGCGACAAGGTGCTGATGCCGCTGGCGATTACAGGTTTCATCATGCCGTTTGTG
CO_15098495_59 ATACGCAAGGCGACAAGGTGCTGATGCCGCTGGCGATTACAGGTTTCATCATGCCGTTTGTG

SEQ_ID_NO_18 ATGGCTTCCATGTCCGCAGAAATGCTTAATGAATTACAACAGTACTGCGATGAGTGGCAGG
CO_15098495_59 ATGGCTTCCATGTCCGCAGAAATGCTTAATGAATTACAACAGTACTGCGATGAGTGGCAGG

SEQ_ID_NO_18 GCGGGGCGTAATTTTTTAAGGCAGTTATTGGTGCCCTTAAACGCCCTGGTGTCTACGCCT
CO_15098495_59 GCGGGGCGTAATTTTTTAAGGCAGTTATTGGTGCCCTTAAACGCCCTGGTGTCTACGCCT

SEQ_ID_NO_18 GAATAAGTGATAATAAGCGGATGAATGGCAGAAATTCGAAAGCAAATTCGACCCGGTCGT
CO_15098495_59 GAATAAGTGATAATAAGCGGATGAATGGCAGAAATTCGAAAGCAAATTCGACCCGGTCGT

SEQ_ID_NO_18 CGGTTACAGGCAGGGTCGTTAAATAGCCGCTTATGTCTATTGCTGGTTTACCGGTTTATT
CO_15098495_59 CGGTTACAGGCAGGGTCGTTAAATAGCCGCTTATGTCTATTGCTGGTTTACCGGTTTATT

SEQ_ID_NO_18 GACTACCGGAAGCAGTGTGACCGTGTGCTTCTCAAATGCCTGAGGCCAGTTTGTCTCAGGC
CO_15098495_59 GACTACCGGAAGCAGTGTGACCGTGTGCTTCTCAAATGCCTGAGGCCAGTTTGTCTCAGGC

SEQ_ID_NO_18 TCTCCCGTGGAGGTAATAATTGACGATATGATCATTATTCTGCCTCCAGCTGACATT
CO_15098495_59 TCTCCCGTGGAGGTAATAATTGACGATATGATCATTATTCTGCCTCCAGCTGACATT

SEQ_ID_NO_18 CATCCGGGGTCAGCACCGTTTCTGCGGACTGGCTTTCTACGTGTTCCGCTTCCTTTAGCA
CO_15098495_59 CATCCGGGGTCAGCACCGTTTCTGCGGACTGGCTTTCTACGTGTTCCGCTTCCTTTAGCA

SEQ_ID_NO_18 GCCCTTGCGCCCTGAGTGCCTGCGGCAGCGTGAAGCTAATTCTGTACGCCGTTAAGTGTT
CO_15098495_59 GCCCTTGCGCCCTGAGTGCCTGCGGCAGCGTGAAGCTAATTCTGTACGCCGTTAAGTGTT

SEQ_ID_NO_18 CCTGTGTCACTCAAATTGCTTTGAGAGGCTCTAAGGGCTTCTCAGTGCGTTACATCCCT
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SEQ_ID_NO_18 GGCTTGTTGTCCACAACCGTTAAACCTTAAAGCTTAAAGCCTTATATATTCTTTTTT
CO_15098495_59 GGCTTGTTGTCCACAACCGTTAAACCTTAAAGCTTAAAGCCTTATATATTCTTTTTT

SEQ_ID_NO_18 TTCTTATAAACTTAAACCTTAGAGGCTATTTAAGTTGCTGATTTATATTAATTTTATT
CO_15098495_59 TTCTTATAAACTTAAACCTTAGAGGCTATTTAAGTTGCTGATTTATATTAATTTTATT

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CO_15098495_59 GTTCAAACATGAGAGCTTAGTACGTGAAACATGAGAGCTTAGTACGTTAGCCATGAGAGC

SEQ_ID_NO_18 TTAGTACGTTAGCCATGAGGGTTAGTTCGTTAAACATGAGAGCTTAGTACGTTAAACAT
CO_15098495_59 TTAGTACGTTAGCCATGAGGGTTAGTTCGTTAAACATGAGAGCTTAGTACGTTAAACAT

SEQ_ID_NO_18 GAGAGCTTAGTACGTGAAACATGAGAGCTTAGTACGTACTATCAACAGGTTGAAGTCTG
CO_15098495_59 GAGAGCTTAGTACGTGAAACATGAGAGCTTAGTACGTACTATCAACAGGTTGAAGTCTG

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CO_15098495_59 ATCAACAGATCCTCTACGCGCCGCGGTACCATAACTTCGTATAGCATACATTATACGAA

SEQ_ID_NO_18 GTTATCTGGTTTAAACGTACCCGTAGTGGCTATGGCAGGGCTTGCCGCCCGACGTTGGC
CO_15098495_59 GTTATCTGGTTTAAACGTACCCGTAGTGGCTATGGCAGGGCTTGCCGCCCGACGTTGGC

SEQ_ID_NO_18 TGCAGGCCCTGGGCCTTCACCCGAACCTGGGGGTTGGGGTGGGGAAAAGGAAGAAACGCG
CO_15098495_59 TGCAGGCCCTGGGCCTTCACCCGAACCTGGGGGTTGGGGTGGGGAAAAGGAAGAAACGCG

SEQ_ID_NO_18 GGCGTATTGGTCCCAATGGGGTCTCGGTGGGGTATCGACAGAGTGCCAGCCCTGGGACCG
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SEQ_ID_NO_18 AACCCCGCGTTTATGAACAAACGACCAACACCCGTGCGTTTTATTCTGTCTTTTATTG

CO_15098495_59	AACCCCGCGTTTATGAACAAACGACCCAACCCCGTGCCTTTATTCTGTCTTTTATTG *****
SEQ_ID NO 18 CO_15098495_59	CCGTCATAGCGCGGGTTCCTCCGGTATTGTCTCCTCCGTGTTTCAGTTAGCCTCCCC CCGTCATAGCGCGGGTTCCTCCGGTATTGTCTCCTCCGTGTTTCAGTTAGCCTCCCC *****
SEQ_ID NO 18 CO_15098495_59	ATCTCCCGGTACCGCATGCTATGCATCAGTGCTAGCTTAGCGAGCGTCCACAGCCTGGG ATCTCCCGGTACCGCATGCTATGCATCAGTGCTAGCTTAGCGAGCGTCCACAGCCTGGG *****
SEQ_ID NO 18 CO_15098495_59	GACCGTAACGGGAGTGAGCGGGCAGGTTACACGGGTCTGCTTCAGCTCAGGGGGCAGGC GACCGTAACGGGAGTGAGCGGGCAGGTTACACGGGTCTGCTTCAGCTCAGGGGGCAGGC *****
SEQ_ID NO 18 CO_15098495_59	CAGCGTAGTACTTGTCCAGGTGACGCAGCAGGGGGGGTCCAGCTGGTGACGCAGGCAGA CAGCGTAGTACTTGTCCAGGTGACGCAGCAGGGGGGGTCCAGCTGGTGACGCAGGCAGA *****
SEQ_ID NO 18 CO_15098495_59	ATTCTTTCACAGCGTTGTACAGGCCGTAGAACAGGGTGATACCTCGGGAGCAGCAGCGG ATTCTTTCACAGCGTTGTACAGGCCGTAGAACAGGGTGATACCTCGGGAGCAGCAGCGG *****
SEQ_ID NO 18 CO_15098495_59	TGGACACGGGCAGACGCACAGCAGGTTGGTACGGGTAGCCTCGTTACGGATAGCCACCA TGGACACGGGCAGACGCACAGCAGGTTGGTACGGGTAGCCTCGTTACGGATAGCCACCA *****
SEQ_ID NO 18 CO_15098495_59	CCACGTTGAACAGGGAGGGGGGCACCAGCTCGAAACCCAGCAGTGTTCGGTGAAGATGG CCACGTTGAACAGGGAGGGGGGCACCAGCTCGAAACCCAGCAGTGTTCGGTGAAGATGG *****
SEQ_ID NO 18 CO_15098495_59	AACGACCGTAGGACAGCAGGTAGGTCGTAACACGGCACAGGTGCTCCACGCAAGTGT AACGACCGTAGGACAGCAGGTAGGTCGTAACACGGCACAGGTGCTCCACGCAAGTGT *****
SEQ_ID NO 18 CO_15098495_59	ACACAGCGGGGAACCGTCGCCGCACTCGGAGTAACCGCGCATCACGGTCATCCAACGGG ACACAGCGGGGAACCGTCGCCGCACTCGGAGTAACCGCGCATCACGGTCATCCAACGGG *****
SEQ_ID NO 18 CO_15098495_59	GAGCGGTGTTCGGAGGACAGCAGGTCAGCAGAGCACGAGTGGTCGGGGTGTGTGTACA GAGCGGTGTTCGGAGGACAGCAGGTCAGCAGAGCACGAGTGGTCGGGGTGTGTGTACA *****
SEQ_ID NO 18 CO_15098495_59	GCAGGGCCAGGGTGTCCAGGAAAGCGTCGTCCAGCAGCAGGAGTTAGCAGCCTCGGGGG GCAGGGCCAGGGTGTCCAGGAAAGCGTCGTCCAGCAGCAGGAGTTAGCAGCCTCGGGGG *****
SEQ_ID NO 18 CO_15098495_59	TCACGGGACGGTAACGGATCAGCTGGGACAGGGGACCGTCCCTACGGGTACGTTGACCA TCACGGGACGGTAACGGATCAGCTGGGACAGGGGACCGTCCCTACGGGTACGTTGACCA *****
SEQ_ID NO 18 CO_15098495_59	GGGGACGCAGCCAGGACTCGTACTTGTTCGCCCTGGAACACCTCTCCAGCAGGCAACGAC GGGGACGCAGCCAGGACTCGTACTTGTTCGCCCTGGAACACCTCTCCAGCAGGCAACGAC *****
SEQ_ID NO 18 CO_15098495_59	GGGTACGCTCGGGGCACTCAGCGGGCACCTTCTCAGCCACGGTGGGAGCCACGGACACGG GGGTACGCTCGGGGCACTCAGCGGGCACCTTCTCAGCCACGGTGGGAGCCACGGACACGG *****
SEQ_ID NO 18 CO_15098495_59	TAGCGGAGGACACGATGGGCAGCAGGCAGCAGCACCACAGCAGGCCACGGGACCGGGG TAGCGGAGGACACGATGGGCAGCAGGCAGCAGCACCACAGCAGGCCACGGGACCGGGG *****
SEQ_ID NO 18 CO_15098495_59	AGAAGGAGAAACCGCAGTCGGGACGACGGCACATGGTGGCTCGAGATCCCGGGTGATCAA AGAAGGAGAAACCGCAGTCGGGACGACGGCACATGGTGGCTCGAGATCCCGGGTGATCAA *****
SEQ_ID NO 18 CO_15098495_59	GTCTTCGTCGAGTGATTGTAAATAAAATGTAATTTACAGTATAGTATTTTAATTAATATA GTCTTCGTCGAGTGATTGTAAATAAAATGTAATTTACAGTATAGTATTTTAATTAATATA *****
SEQ_ID NO 18 CO_15098495_59	CAATGATTTGATAAATAATCTTATTTAACTATAATATATTGTGTTGGGTGAATTAAG CAATGATTTGATAAATAATCTTATTTAACTATAATATATTGTGTTGGGTGAATTAAG *****
SEQ_ID NO 18 CO_15098495_59	GTCCGTATACTAGTATCGATTTCGCGACCTACTCCGGAATATTAATAGATCATGGAGATAA GTCCGTATACTAGTATCGATTTCGCGACCTACTCCGGAATATTAATAGATCATGGAGATAA *****
SEQ_ID NO 18 CO_15098495_59	TTAAATGATAACCATCTCGAAATAAATAAGTATTTACTGTTTCGTAACAGTTTGT TTAAATGATAACCATCTCGAAATAAATAAGTATTTACTGTTTCGTAACAGTTTGT *****
SEQ_ID NO 18 CO_15098495_59	AATAAAAAACCTATAAATATTCGGATTATTCATACCGTCCCACCATCGGGCGCGGATC AATAAAAAACCTATAAATATTCGGATTATTCATACCGTCCCACCATCGGGCGCGGATC

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SEQ_ID_NO_18      CGCCACCATGTCCCCAAGAACCTGACCCCTTCCTGACCGCTCTGTGGCTGCTGCTGGG
CO_15098495_59   CGCCACCATGTCCCCAAGAACCTGACCCCTTCCTGACCGCTCTGTGGCTGCTGCTGGG
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SEQ_ID_NO_18      CCACTCCCGTGTGCCTCGTGTGCGTGTGAGGAATGCTGCGAGTTCATCAACGTGAACCA
CO_15098495_59   CCACTCCCGTGTGCCTCGTGTGCGTGTGAGGAATGCTGCGAGTTCATCAACGTGAACCA
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SEQ_ID_NO_18      CCCCCCGAGCGCTGCTACGACTTCAAGATGTGCAACCGTTTACCCTGGCTCTGCGTTG
CO_15098495_59   CCCCCCGAGCGCTGCTACGACTTCAAGATGTGCAACCGTTTACCCTGGCTCTGCGTTG
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SEQ_ID_NO_18      CCCCAGCGCGAAGTGTGCTACTCCCCGAAAAGACCGTGAGATCCGTGGTATCGTGAC
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SEQ_ID_NO_18      CACCATGACCCACTCCCTGACCCGTCAGGTGGTGCACAACAAGCTGACCTCTTGCAACTA
CO_15098495_59   CACCATGACCCACTCCCTGACCCGTCAGGTGGTGCACAACAAGCTGACCTCTTGCAACTA
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SEQ_ID_NO_18      CAACCCCTGTACCTCGAGGCTGACGGTCGTATCCGTTGCGGCAAGGTCAACGACAAGGC
CO_15098495_59   CAACCCCTGTACCTCGAGGCTGACGGTCGTATCCGTTGCGGCAAGGTCAACGACAAGGC
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SEQ_ID_NO_18      TCAGTACCTGCTGGGTGCTGCTGGTTCCTGTCCTACCCTGGATCAACCTCGAGTACGA
CO_15098495_59   TCAGTACCTGCTGGGTGCTGCTGGTTCCTGTCCTACCCTGGATCAACCTCGAGTACGA
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SEQ_ID_NO_18      CAAGATCACCCGTATCGTGGGCTGGACCAGTACCTCGAGTCCGTGAAGAAGCACAAGCG
CO_15098495_59   CAAGATCACCCGTATCGTGGGCTGGACCAGTACCTCGAGTCCGTGAAGAAGCACAAGCG
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SEQ_ID_NO_18      TCTGGACGTGTGCCGTGCTAAGATGGGTACATGCTGCAGTAAAAGCTTGTGAGAAGTA
CO_15098495_59   TCTGGACGTGTGCCGTGCTAAGATGGGTACATGCTGCAGTAAAAGCTTGTGAGAAGTA
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SEQ_ID_NO_18      CTAGAGGATCATAATCAGCCATACCCATTTGTAGAGGTTTACTTGCTTTAAAAACCT
CO_15098495_59   CTAGAGGATCATAATCAGCCATACCCATTTGTAGAGGTTTACTTGCTTTAAAAACCT
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SEQ_ID_NO_18      CCCACACCTCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTAACTTGTT
CO_15098495_59   CCCACACCTCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTAACTTGTT
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SEQ_ID_NO_18      TATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTACAAATAAAGC
CO_15098495_59   TATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTACAAATAAAGC
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SEQ_ID_NO_18      ATTTTCTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATCAATGTATCTTATCATGT
CO_15098495_59   ATTTTCTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATCAATGTATCTTATCATGT
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SEQ_ID_NO_18      CTGGATCTGATCACTGCTTGAGCCTAGAAGATCCGGCTGCTAACAAAGCCGAAAGGAAG
CO_15098495_59   CTGGATCTGATCACTGCTTGAGCCTAGAAGATCCGGCTGCTAACAAAGCCGAAAGGAAG
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SEQ_ID_NO_18      CTGAGTTGGCTGCTGTGGCTAGCTTTGTTTAACTTTAAGAAGGAGATACATCTAGACCGG
CO_15098495_59   CTGAGTTGGCTGCTGTGGCTAGCTTTGTTTAACTTTAAGAAGGAGATACATCTAGACCGG
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SEQ_ID_NO_18      AATATTAATAGATCATGGAGATAATTAAAAATGATAACCATCTCGAAATAAATAAGTATT
CO_15098495_59   AATATTAATAGATCATGGAGATAATTAAAAATGATAACCATCTCGAAATAAATAAGTATT
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SEQ_ID_NO_18      TTACTGTTTTTCGTAACAGTTTTTGTAAATAAAAAACCTATAAATATTCGGATTATTTCATA
CO_15098495_59   TTACTGTTTTTCGTAACAGTTTTTGTAAATAAAAAACCTATAAATATTCGGATTATTTCATA
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SEQ_ID_NO_18      CCGTCCACCATCGGGCGCGGATCCGCCACCATGCTGCGTCTGCTGCTGCGTCACCACTT
CO_15098495_59   CCGTCCACCATCGGGCGCGGATCCGCCACCATGCTGCGTCTGCTGCTGCGTCACCACTT
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SEQ_ID_NO_18      CCACTGCCTGCTGCTGTGCGCTGTGTGGGTACCCCTGCCTGGCTTCCCCTTGGTCCAC
CO_15098495_59   CCACTGCCTGCTGCTGTGCGCTGTGTGGGTACCCCTGCCTGGCTTCCCCTTGGTCCAC
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SEQ_ID_NO_18      CCTGACCGCTAACCGAGAACCCTCCCCACCTGGTCCAAGCTGACCTACTCCAAGCCCCA
CO_15098495_59   CCTGACCGCTAACCGAGAACCCTCCCCACCTGGTCCAAGCTGACCTACTCCAAGCCCCA
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SEQ_ID_NO_18      CGACGCTGCTACCTTCTACTGCCCTTCCTGTACCCATCCCCCCTCGTTCCCCTACTGCA
CO_15098495_59   CGACGCTGCTACCTTCTACTGCCCTTCCTGTACCCATCCCCCCTCGTTCCCCTACTGCA
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SEQ ID NO 18 CO_15098495_59	GTTCTCCGGTTTCAGCGTGTGCTGACCGGTCCCGAGTGCCGTAACGAGACTCTGTACCT GTTCTCCGGTTTCAGCGTGTGCTGACCGGTCCCGAGTGCCGTAACGAGACTCTGTACCT *****
SEQ ID NO 18 CO_15098495_59	GCTGTACAACCGCGAGGGCCAGACCCCTGGTCGAGAGGTCCTCCACCTGGGTCAAGAAGGT GCTGTACAACCGCGAGGGCCAGACCCCTGGTCGAGAGGTCCTCCACCTGGGTCAAGAAGGT *****
SEQ ID NO 18 CO_15098495_59	CATCTGGTACTTGTCCGGTCGTAACCAGACCATCCTGCAGCGTATGCCCCGTACCGCTTC CATCTGGTACTTGTCCGGTCGTAACCAGACCATCCTGCAGCGTATGCCCCGTACCGCTTC *****
SEQ ID NO 18 CO_15098495_59	CAAGCCCTCCGACGGCAACGTGCAGATCTCCGTCGAGGACGCTAAGATCTTCGGTGCTCA CAAGCCCTCCGACGGCAACGTGCAGATCTCCGTCGAGGACGCTAAGATCTTCGGTGCTCA *****
SEQ ID NO 18 CO_15098495_59	CATGGTGCCCAAGCAGACCAAGCTGCTGCGTTTCGTGGTCAACGACGGCACCCGTTACCA CATGGTGCCCAAGCAGACCAAGCTGCTGCGTTTCGTGGTCAACGACGGCACCCGTTACCA *****
SEQ ID NO 18 CO_15098495_59	GATGTGCGTGATGAAGCTCGAGTCCTGGGCTCACGTGTTCCGTGACTACTCCGTGTCCTT GATGTGCGTGATGAAGCTCGAGTCCTGGGCTCACGTGTTCCGTGACTACTCCGTGTCCTT *****
SEQ ID NO 18 CO_15098495_59	CCAAGTGCGCCTGACCTTCACCGAGGCTAACAACCAGACCTACACCTTCTGCACCCACCC CCAAGTGCGCCTGACCTTCACCGAGGCTAACAACCAGACCTACACCTTCTGCACCCACCC *****
SEQ ID NO 18 CO_15098495_59	CAACCTGATCGTGTAAGCTTGTGCGAGAAGTACTAGAGGATCATAATCAGCCATACCAC CAACCTGATCGTGTAAGCTTGTGCGAGAAGTACTAGAGGATCATAATCAGCCATACCAC *****
SEQ ID NO 18 CO_15098495_59	ATTTGTAGAGGTTTACTTGCTTTAAAAAACCTCCACACCTCCCCGTAACCTGAAACA ATTTGTAGAGGTTTACTTGCTTTAAAAAACCTCCACACCTCCCCGTAACCTGAAACA *****
SEQ ID NO 18 CO_15098495_59	TAAATGAATGCAATTGTTGTTAACTTGTATTATGCAGCTTATAATGGTTACAAATA TAAATGAATGCAATTGTTGTTAACTTGTATTATGCAGCTTATAATGGTTACAAATA *****
SEQ ID NO 18 CO_15098495_59	AAGCAATAGCATCACAATTTTCAAAATAAAGCATTTTTTCACTGCATTCTAGTTGTGG AAGCAATAGCATCACAATTTTCAAAATAAAGCATTTTTTCACTGCATTCTAGTTGTGG *****
SEQ ID NO 18 CO_15098495_59	TTTGTCCAAACTCATCAATGTATCTTATCATGTCTGGATCTGATCACTGCTTGAGCCTAG TTTGTCCAAACTCATCAATGTATCTTATCATGTCTGGATCTGATCACTGCTTGAGCCTAG *****
SEQ ID NO 18 CO_15098495_59	AAGATCCGGCTGCTAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTGGGTGCCTAATGA AAGATCCGGCTGCTAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTGGGTGCCTAATGA *****
SEQ ID NO 18 CO_15098495_59	GTGAGCTAACTCACATTAATTGCCCGGAATATTAATAGATCATGGAGATAATTAAATGA GTGAGCTAACTCACATTAATTGCCCGGAATATTAATAGATCATGGAGATAATTAAATGA *****
SEQ ID NO 18 CO_15098495_59	TAACCATCTCGCAAATAAATAAGTATTTTACTGTTTTCGTAACAGTTTGTAAATAAAAAA TAACCATCTCGCAAATAAATAAGTATTTTACTGTTTTCGTAACAGTTTGTAAATAAAAAA *****
SEQ ID NO 18 CO_15098495_59	ACCTATAAATATTCCGATTATTTCATACCGTCCCACCATCGGGCGCGGATCCGCCACCAT ACCTATAAATATTCCGATTATTTCATACCGTCCCACCATCGGGCGCGGATCCGCCACCAT *****
SEQ ID NO 18 CO_15098495_59	GCGTCTGTGCGGTGTGTGGCTGTCCGTGTGCCTGTGCGCTGTGGTGTGGGCCAGTGCCA GCGTCTGTGCGGTGTGTGGCTGTCCGTGTGCCTGTGCGCTGTGGTGTGGGCCAGTGCCA *****
SEQ ID NO 18 CO_15098495_59	GCGTGAAACCGCTGAGAAGAACGACTACTACCGTGTGCCCCACTACTGGGACGCTTGCTC GCGTGAAACCGCTGAGAAGAACGACTACTACCGTGTGCCCCACTACTGGGACGCTTGCTC *****
SEQ ID NO 18 CO_15098495_59	CCGTGCTCTGCCCGACAGACCCGTTACAAGTACGTCGAGCAGCTGGTGGACCTGACCCCT CCGTGCTCTGCCCGACAGACCCGTTACAAGTACGTCGAGCAGCTGGTGGACCTGACCCCT *****
SEQ ID NO 18 CO_15098495_59	GAACTACCACTACGACGCTTCCCACGGCCTGGACAACCTCGACGTGCTGAAGCGTATCAA GAACTACCACTACGACGCTTCCCACGGCCTGGACAACCTCGACGTGCTGAAGCGTATCAA *****
SEQ ID NO 18 CO_15098495_59	CGTGACCGAGGTGTCCTGTGATCTCCGACTTCCGTGCTCAGAACCCTGCTGGTGGCAC CGTGACCGAGGTGTCCTGTGATCTCCGACTTCCGTGCTCAGAACCCTGCTGGTGGCAC *****

SEQ_ID NO 18	CAACAAGCGTACCACCTTCAACGCTGCTGGTTCCTGGCTCCCCACGCTCGTTCCTCGA
CO_15098495_59	CAACAAGCGTACCACCTTCAACGCTGCTGGTTCCTGGCTCCCCACGCTCGTTCCTCGA

SEQ_ID NO 18	GTTCTCCGTGCGTCTGTTCGCTAACTAAAAGCTTGTGAGAAGTACTAGAGGATCATAAT
CO_15098495_59	GTTCTCCGTGCGTCTGTTCGCTAACTAAAAGCTTGTGAGAAGTACTAGAGGATCATAAT

SEQ_ID NO 18	CAGCCATACCACATTTGTAGAGGTTTACTTGCTTTAAAAAACCTCCACACCTCCCCCT
CO_15098495_59	CAGCCATACCACATTTGTAGAGGTTTACTTGCTTTAAAAAACCTCCACACCTCCCCCT

SEQ_ID NO 18	GAACCTGAAACATAAAATGAATGCAATTGTTGTTAACTTGTTTATTGCAGCTTATAA
CO_15098495_59	GAACCTGAAACATAAAATGAATGCAATTGTTGTTAACTTGTTTATTGCAGCTTATAA

SEQ_ID NO 18	TGGTTACAAATAAAGCAATAGCATCACAAATTTACAAATAAAGCATTTTTTTCAC TGCA
CO_15098495_59	TGGTTACAAATAAAGCAATAGCATCACAAATTTACAAATAAAGCATTTTTTTCAC TGCA

SEQ_ID NO 18	TTCTAGTTGTGGTTTGTCCTCAATGTATCTTATCATGCTGGATCTGATCACT
CO_15098495_59	TTCTAGTTGTGGTTTGTCCTCAATGTATCTTATCATGCTGGATCTGATCACT

SEQ_ID NO 18	GCTTGAGCCTAGAAGATCCGGCTGCTAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTG
CO_15098495_59	GCTTGAGCCTAGAAGATCCGGCTGCTAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTG

SEQ_ID NO 18	CCACCGTGAGCAATAACTATCATAACCCCTAGGAGATCCGAACCAGATAAGTGAAATCT
CO_15098495_59	CCACCGTGAGCAATAACTATCATAACCCCTAGGAGATCCGAACCAGATAAGTGAAATCT

SEQ_ID NO 18	AGTTCCAAACTATTTGTCATTTTAAATTTTCGTATTAGCTTACGACGCTACACCCAGTT
CO_15098495_59	AGTTCCAAACTATTTGTCATTTTAAATTTTCGTATTAGCTTACGACGCTACACCCAGTT

SEQ_ID NO 18	CCCATCTATTTGTCACTCTCCCTAAATAATCCTTAAAACTCCATTTCCACCCCTCCC
CO_15098495_59	CCCATCTATTTGTCACTCTCCCTAAATAATCCTTAAAACTCCATTTCCACCCCTCCC

SEQ_ID NO 18	AGTTCCCAACTATTTGTCCGCCACA
CO_15098495_59	AGTTCCCAACTATTTGTCCGCCACA
