



Lexicon Genetics Incorporated – Genentech Project Materials

Genentech ID:	UNQ3075	Date of Submission:	7/13/05
Lexicon Contract Name:	DNA329	Mutation Type:	☒ Standard Knock out
LexVision Name:	MAS251N1		☐ Conditional
Reference accessions:	BC037216, AY182031, ENSMUST00000043347, NM_178731.2	Is this gene X-linked?	No

Required Materials: ☒ pKOS clone DNA(s) __pKOS-65_____
☒ Target Vector DNA __pKOS-65 TV Puro_____
☒ Targeted ES Cell DNA __1B3_____
☒ Genomic Map

Southern Blot Analysis:
External/Internal Probe Strategies

	<u>5' Internal</u>	<u>3' External</u>
Name of Probe:	IRES 8/ 9	20/21
Restriction Enzyme for Genomic Digest:	NcoI	BglII
Predicted Wild-type Band (kb):	---	17.0
Predicted Mutant Band (kb):	~6.2	9.6
Probe Size:	291	569

PCR Strategies:

For standard knockouts, give wildtype and mutant-specific strategies

For conditionals, give 5' loxP and cre-excision strategies

Wild type-specific (absent in targeted allele)		Mutation-specific product (absent in wt)	
5' Primer Name:	DNA329-3	5' Primer Name:	DNA329-3
3' Primer Name:	DNA329-4	3' Primer Name:	GT IRES
Predicted Wild-type Band (bp):	463	Predicted Wild-type Band (bp):	none
Predicted mutant band (bp)	none	Predicted mutant band (bp)	595

5' loxP strategy		Distinguish Cre-excised and wt	
5' Primer Name:		5' Primer Name:	
3' Primer Name:		3' Primer Name:	
Predicted Wild-type Band (bp):		Predicted Wild-type Band (bp):	
Predicted mutant band (bp)		Predicted mutant band (bp)	

Primer sequences:**Southern probes**

IRES 8 5' – AGGAAGCAGTTCCTCTGGAA
 IRES 9 5' – CACATGTAAAGCATGTGCACC
 DNA329-20 5' – AAGTGAAAGCCTTGATGTCTA
 DNA329-21 5' – GGAGGCATTATAGGTCAGAT

PCR Genotyping

DNA329-3 5' – CGTTTCAGGGTTGGGATAGAGTAG
 DNA329-4 5' –GTATACAATCTTGCCATCGC
 GT IRES 5' –CCCTAGGAATGCTCGTCAAGA

Genomic Sequence Deleted:

AGGCATGAGTGTGTTTCTGGTGCTATTTCCACCCCTGCTGCTGGTTATGCTGACGGGGGCTCAGAGAGCTTGCCCCAAAGAACTGCAGATGCGATGGCAAGATTGTATACTGTGAGTCTCACGCCCTTCGCAGACATCCCTGAGAACATTTCTGGAGGGTCACAAGGTTTATCCTTAA GGTTC AACAGCATT CAGAAACTCAAATCCAATCAGTTTGCCGGCCTTAACCAGCTTATATGGCTTTATCTTGACCATAATTACATTAG CTCAGTGGACGAAGATGCCTTTCAAGGGATCCGCAGACTGAAAGAATTAATTCTAAGTCCAAACAAAATTACCTATCTGCACAATAA AACATTTACCCAGTCCCCAACCTCCGCAACCTGGATCTCTCCTACAACAAACTTCAGACCTTACAGTCTGAGCAGTTTAAAGGCCTC CGGAAACTCATCATTTTGCACCTTGCATCTAATTCTCTCAAGACCGTGCCCATACGGGTTTTTCAAGACTGCCGGAACCTTGACTTTCT GGATTTGGGTTATAATCGGCTCCGAAGCTTATCCCGAAACGCGTTTGCCGGTCTTCTGAAGTTAAAGAGCTCCACCTGGAGCATAAT CAGTTTTCAAAGATCAACTTTGCTCATTTTCCCTCGTCTCTTCAACCTGCGATCCATCTACCTGCAATGGAACAGGATCCGCTCTGTGAG TCAAGGCCTAACATGGACCTGGAGTTCCCTGCACACCTTGGATTTATCAGGGAATGACATCCAAGCAATCGAGCCTGGCACATTTAAAG TGCCTCCCCAATTTGCAAAAATGAATTTGGATTCCAACAAGCTCACCATGTCTCCAGGAGACTGTCAATGCATGGATATCCTTAA TATCTCATCCTTGTCTGGAACATGTGGGAATGTAGTCGGAGCATCTGTCTCTATTCTACTGGCTGAAGAATTTCAAAGGGATAA AGAAAGTACCATGATATGTGCAGGGCCTAAGCACATACAGGGTGAGAAGGTTAGCGATGCCGTGGAGACTTACAACATCTGCTCTGA TGTCCAGGTGGTCAACACAGAACGATCACATCTGGCGCCTCAAACCTCCCCAGAAAGCCCCCGTTCATCCCCAACCTACCATCTTCAAA CCGGATGCAGTCCCAGCCACCCTAGAGGCAGTGAGCCCATCCCCGGGCTTTCAAATTCAGGTACGGATCATGAGTACGAGCAGCGTG TCGTTTCACAAAATCATCGCAGGGAGCGTGGCTCTGTTCCCTCCGTGGCCATGATTCTCCTGGTGATCTATGTGCTTGGAAACGGTA CCCAGCCAGCATGAAACAACTCCAACAGCACTCACTTATGAAGAGGAGACGGAAAAAGGCGAGGGAGTCGGAGAGACAGATGAATT CCCCTTTACAGGAATACTACGTGGACTACAAACCGACGAACCTCTGAGACCATGGATATATCGGTAAATGGATCTGGTCCCTGCACATA TACCATCTCTGGCTCCAGGGAGTGTGAGGTATGAACCGTGATCCTCTAAACCATTTCCTACTGCGGGGAAGGAGAGG

Genomic Locus: (The deleted sequence represents nt7038-8609-in the sequence below. KOS65 used to generate the TV represents nt2993-12547 in the sequence below.)

TGAAAAAATGTTCAACATCCTTAATCATCAGGGAAATGCAAAACAAACCCTGAGATTCCACCTCACACCAGTCAGAATGGCT AAGATCAAAAATTCAGGTGACAGCAGATGCTGGCGAGGATGTGGAGAAAGAGGAACACTCCTCCATTGTTGGTGGGAGTGCAGGCT TGTACAACCCTCTGGAAATCAGTCTGGCGGTTCCCTCAGAAAACCTGGACATAGTACTACCGGAGGATCCAGCAATACCTCTCCTGGG CATATATCCAGAAGATGCCCCAACAGGTAAGAAGGACACATGCTCCACTATGTTCAATAGCAGCCTATTATATAATAGCCAGAAGCTG GAAAGAACCTAGATGCCCCCTCAACAGAGGAATGGATACAGAAAATGTGGTACATCTACACAATGGAGTACTACTCAGCTATTAAAAAG GAATGAATTTATGAAATCTTAGCCAAATGGATGGACCTGGAGGGCATCCTGAGTGAGGTAACACATTCACAAAGAATCTCATA CAATATGTATTCACTGATAAGTGGATATTAGCCCCAACTAGGATACCCAAAGATATAAGATATAATTGCTAAACACATGAAACTC AAGGAGATGAAGACTGAAGTGTGGACACTATGCCCCCTCCTTAGATTTGGGAACAAACACCCATGGAAGGATTACAGAGACGGA GTTTGGAGCTGAGATGAAAGGATGGACCATGTAGAGACTGCCCATAGCCAGGGATCCACCCCATAAATCAGCATCCAAACGCTGACAC CATTGCATACACTAGCAAGATTTTATTGAAAGGACACAGATGTAGCTGTCTCTTGTGAGACTATGCCGGGGGCCAGCAAACACAGAA GTGGATGCTCACAGTCAGCTAATGGATGGATCATAGGGCTCCCAATGGAGGAGCTAGAGAAAGTAGCCAAGGAGCTAAAGGGATCT GCAACCTATAGGTGGAACAACATTATGAGCTAACCAGTACCCCGGAGCTCTTGACTCTAGCTGCATATATATCAAAAGATGGCCTA GTCGGCCATCACTGGAAAGAGAGGGCCATTGGACTTGCAAACTTTATATGCCCCAGTACAGGGGAATACCAGGGCCAAAAAGGGGG AGTGGGTGGGCAGGGGAGTGGGGGTGGGTGGATATGGGGGACTTTTGGTATAGCATTTGAAATGTAAATGAGTTAAATACCTAATAA AAAATGGAAAAAAGAAAGAAAGCAGTCTTTTTCTCCTTTGTATTTTTTTCTAGTGTCTTACCCATATTTTGTGACTTTTGTTTATC ATTTTGCTATTTTATAGCTAAGCATGCAATGAGACTCTTCTCTTGGGTGTCCCATCAGGGTGTGAGATGGACTCAAGCTGACTTTCCAC TTAACCATCTTTTTTTTCCCTGGAAAAAATATTATATTCAGGTTTTTATCCAGACAAATGCTGAACATGGAAGCTATTTCCAAT ACTACCTAGATCTCCTTTGTTCTAGGAAACTCATTAACTTCTGTTGATTTTCTTAGCAAGAATCAGATACAATTTCCACAGAGGGCT CACTAGGGGCACACAACAAGTAGCCACAGTGGTCATTTTCTATGTGTTAATGATCTGAAGAAGTGATAAATCAAAGTTTTCTCTTG AGTGAAGTGTGTGTGTTTGTGTGTGTGTGTAAGTGTGTACACAGGAGAAGGAAAGATTTTTTCTCAAACAAAACCTTACATACAGT ATCTTATATATCACTCTATACCTCACTACATCATCATAGTATATTCATGCTATCTTATCATTATGATGACTACTTACAAAATTAGAA CAGAATATTGCATCAACTTTTAAAAACATTATTTATTAGGTCTTACAGGAACATTAACCTTAGATTTTAAAGACAAAAGACTAATAGCAA GGGCTCTGTGGACCCTTTCTTTAACCTCCTCAGTGTGAGATGCATCCAAGTCTGTATGAACCATGTCCAGTCAGTACTTACTAAATCT TGATACTTTTTTCCACTTTTCCATTCAATGAAAGATTTAGTTTACTTTTAGCAGAGGGGGAGTTGCAGACGGGGATGGGGGTAGAGGG ATTATAAGCTATTTAATATTGTTACTGCCTCCAAATGCTCCAAACTACTGAGGCATCTTCCAGCCTCAGATCTTACCATATTGTAAGC CTATTACCATACAAAATAATATTTCCCATCAACTGTCAAAAATGCTTCTCATATTGTAGATTTAAACAAAAGAAAACCTTACACATTT GTGGATAGATAAACATCATGCCTAACTACATATTCATGAGATGAGAAACTAGAAAATACAGACAAAATATCAGAGCAGATGAAATC AAATACACCCTAGTTCCATCTTCCACTTAAATCTGCTCTGAACATTTTCAATTTCCACCCCTCTTCCCCCCCCACATACAAAATAAAA TATTCTGGAAAGAAACCCCTACTGCTTTTCATTTTCTTCTAGTCTCTGGCTTCTTTGATCCTACCTGACCTACCTATATATAATATCTG GCCAGCCAATCAAAAATATTCTTTAATTTTACTTTTTTCTTTCTGAATCAACAATTTCCCTTATCCACCTTCTATCGCTGAATATT TGGGTGGGGTTTGTGTCTCTATGTGAAATACAATAATTTGAAGAGACTGTATATGTATCATTTTTTATTGATTGATTTATTTTATTTCAG TACCCACAATTACATTGCCACTTGTGGTATGAATTTGCATTTTAAATAAATAGTAAGTCTTAAGCCAAAACACACATCTCTAAAGTAG CAGCTCAGGCATCAGTCAATGGGGGGGATGGATGTAGGGAACCGGTGATCCCTTTTTTGTCTTTGAGAAATGTTAGTGACTAGACCA GCATCTGTGACCTTTTGCTCATAAAGCTGAGGGAAATTACGAGTGTTTCATCGTCTTTTCTTCCATTTCAACAAAATAATATCTGATCAG ATAAACTAAACCAAGCATTACTAAAAATTATCCATTTGTGAGGATGACTCCAGCCATAGAAGTTTCTGTAAAACTCTTTTGATGT TTTCAAAGCGGCTGAATGGGGCTGTGACTAAGTAGCAGTCTTGCAGTCTGCGTTTATGTTTTGGGAGTACTGAGTATCTTAAAT GATTATCTGTGAGAGTAATTATAAAATAGCTAAAACTAGGGAACACAACAATGGAGGTATGGGAGGAGACAGTACAGCTCAGTGGTT AAGGTATATGCTCCTCTTGCAGAGGACCCAGTCTCTACTCCCAGATGCTATGCAGAGACTGCCCATGACTTCACTTCCACTGGATCT CATGCCGTCTTCTGGCTTCTGTAGGCACCAAGCACACATGGTAAACAGACATACATGCAAGCCAAATACTTATGCACATAAAATG TGTAGGTGTCTGATACAAATTCAGTGAGAAATATAAATTTTGAAGTCACTCATTTTCAGATTTTTTTTTTAATTTTCATCAGTACTAAT TTCAGGATAGTCTGCAAAATTTAGAAAAGGGCCAGGATAATATAGGAGAATGCTCTGTCTTTTCAGGGTGGTAGGCACAACAGAA

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ACCATCGAAGTGACCAGCGAATACCTGTTCCGTCATAGCGATAACGAGCTCCTGCACTGGATGGTGGCGCTGGATGGTAAGCCGCTG
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AAAGAACCAGCTGATTACCCTGTTATCCCTACTCGACCTCGAGGGCGCGCCATTTAATGGCCAGCGAGGCC

Targeted Locus:

GATCAGATAAACTAAAACCAAAGCATTACTAAAAATTATCCATTTGTGAGGATTGACTCCAGCCATAGAAGTTTCTGTAAAACTCTTT
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