



## Lexicon Genetics Incorporated – Genentech Project Materials

|                               |                                  |                               |                                      |
|-------------------------------|----------------------------------|-------------------------------|--------------------------------------|
| <b>Genentech ID:</b>          | UNQ6503                          | <b>Date of Submission:</b>    | 1-14-05                              |
| <b>Lexicon Contract Name:</b> | DNA456                           | <b>Mutation Type:</b>         | X Standard Knock out                 |
| <b>LexVision Name:</b>        | SEC605N1                         |                               | <input type="checkbox"/> Conditional |
| <b>Reference accessions:</b>  | ENSMUST00000041237,<br>NM_183175 | <b>Is this gene X-linked?</b> | No                                   |

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**Required Materials:** X pKOS clone DNA(s) \_\_pKOS35, pKOS43, and pKOS80\_\_\_\_\_  
X Target Vector DNA \_\_pKOS80. TV\_\_\_\_\_  
X Targeted ES Cell DNA \_\_1D7\_\_\_\_\_  
X Genomic Map

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### Southern Blot Analysis: External/Internal Probe Strategies

|                                        | <u>5' External</u> | <u>3' External</u> |
|----------------------------------------|--------------------|--------------------|
| Name of Probe:                         | 22+23              | 20+21              |
| Restriction Enzyme for Genomic Digest: | Xba I              | Spe I              |
| Predicted Wild-type Band (kb):         | 13.2 kb            | 12.8 kb            |
| Predicted Mutant Band (kb):            | 8.3 kb             | 10.3 kb            |
| Probe Size:                            | 443 bp             | 350 bp             |

**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:                                | DNA456-4 | 5' Primer Name:                          | DNA456-25 |
| 3' Primer Name:                                | DNA456-6 | 3' Primer Name:                          | IRESupLR  |
| Predicted Wild-type Band (bp):                 | 195 bp   | Predicted Wild-type Band (bp):           | none      |
| Predicted mutant band (bp)                     | none     | Predicted mutant band (bp)               | 258 bp    |

| 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**

DNA456-20    5' – GATGACTTCGTAGGCTATGC  
 DNA456-21    5' – CTTTCCTCTACTCAAGCTCC  
 DNA456-22    5' – ATACTGCAGTTACCGTTGGC  
 DNA456-23    5' – AGATCGAGCTGAGGATCCC

**PCR Genotyping**

DNA456-4    5' – AAGAGTGCTTTCCTGTGGG  
 DNA456-6    5' – AGATACCTGCACATTCCTGG  
 DNA456-25    5' – AATCACTCCTGGAGACTCAACC  
 IRESupLR    5' – TGGAAAATAACATATAGACAAACGCACACC

**Genomic Sequence Deleted:**

[illegible]

**Genomic Locus:** *(The deleted sequence represents nt-16367-20026 in the sequence below. KOS80 used to generate the TV represents nt-14038-23655 in the sequence below.)*

CCCTCGGCTTCCTTCTTCAGAGGTTTGGGTAGGCTTCATGAGGTAACCCTTGCTGGTCTGCACAGGGTATCTGAATTC  
TCATTTTGTAGGGCAGTTATTAGATGTCTCTTGATTCTTGGAATTAGCTAATAAGTACTTTAGTCCCAATGTGGCTTC  
CTAGTGA CTGGTCTGTTCTTCTGTCTTCCTGAGTTAGGCTACAACAGCTGTCCCGTGCCCCACCCACCAGAGCCTGC  
CGCCCCCTTACCAGCGCCACATCACTGTGCCACCAGCATCCCGCAGCAGCAGGTCCTTTGCCTTGGCTGAGCCCAAGAG  
GAAGCCATCGATATTCTGGCACACTTTCCACAACTCACCCCCCTCCGGAAATGAGCCTTACCCAGGGCGTGCCTCTGA  
GGTACTGTGGGGAGGAAGACCAGCTTTGTCACTTCAGCGTGATGTCCGGGGATGGCTTCTTGCTCAGTGCTGAACACTT

[illegible]

CTTGTGACACTGATGGCATTGTCATTCCTCAATGTGGCTGAAGAGCTCAAGGCCAGCTGTAGCCAGTATTGCCTACGT  
AGGTTGTGAAGAGAAGTTTCAAATCCGAGGCAGAGGGTTGCCAGGATGTCAAGCAGGCTGCACAGTATCCCAGCAG  
ACCTTGGGGAAGGAAGGGGACACTGGTGACCAAGTCCTCTTATGAATAGGAGTATCATAAACTGAGGCAGAAGAG  
TAGTGTAACAATGCACCAACAGGCTTGTTCTGCTAACTCGGGAGAGAGGGCAGGACTAGGAATACAGCTAGAGAG  
GATTCCCCACGGCCAGGGGAGCAGAAGGGCCTGTGGCAGCCTGAAGCTGAGTGACCACAGAGGTCCCTCTAGCAACCA  
ACTGCACTACCTACACATGAAGGGACTTGGCTGTAGCAGTCAGACCTAAAGAAGCTAAACCGTGCTCAGTGGATGCAA  
CCCAGTATAATGGATGCTGCCAAACCCAGTCCCACCTCCTCTTGGGTACATTGTTGGGGCTGTCTGTGGGCTGAGGAAT  
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TGAGCTCCTGCCCTTCAGAACAGAACAGTATCCTTATGCTCTTGAAACCGCTGCACGTTTGCCTGACCGTTAAGACACTT  
GTCAGGAGAAGCTACAGAGCCTCCGAGTGCTCCTCGGTGGGTGAAGGTCAGGGAAAGGATAGACAGAGTCCCTCATCT  
GCTCCATGCCTGGTCTAAACTACAGATAACGAAGCTGGTAACTTGGCCGATCCTCTGCACCAAAAGCTGAAGTCCGGG  
GTTCCCTGGAAGAGAAGAGTAATTGTCAGGTCCGAAAGGAACCTCGGTTTCCCAAAAAGCTGTGGGTAACCCCGAGAT  
GGCAGCGTTTGTCTAGCTACATTTGCTCAGCTCAGGCTGAACATATAGACAGAGCAGTGTTCCTCAGGAACCCATGAAAG  
GGGCTTCTATCTGGTGAAAGGGCCCCGTCCCTCAGCATGTATTTGTGGTTGTGTATCCTTCAGTTCCACTCCGCATGTA  
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CTCAGCTGCTTGTCTCGTAGAGCCCTACTTCTCTAGTGCTGGGCCATGGGCTTCTTTTTCTCGCTGCTCTAGGCTCTTAA  
GATGCCTCTGGCTATTCTCCTTTCACACCTGTAGTAGAAACCTTTCTAGCTAGGGAGCCATTTTCAGTGGATTATTCAGTG  
CACCCCCACTTACAGCAGTGACCATGAGCAGAGACTCAAACAGACTTCCTGGGTTTCTTCTCTCTGTGTAGCTTGTCCA  
GGAATTTGCTCTGCAGACCAGGCTAGCCTCAAAGTCACAGAGGTCTACCTACCTCTGCTTCCAGAGTGCTGGAATTTAT  
TTATTTATTTACTTACTTACTTACTTATAGCTGGACTGAACCCAGGGTCTTGTGCTTACTAGACAGGTGCTCTACCACCG  
ACCTAAATACCCAACTGGAGAAGATAACTTTATTTTACTGTTTGGTATATTTAAAGGACAGAGCAGGGTCACTGGGAG  
CGTCAGGCCTTATCGAGAGCTTTAGGAGTCACAAGGGTGCTCAGAGCTGCTTCATGAACCATCCTACCCCCCATAGCAT  
AGCAGAAGGCCTTTTCTCCCGACTGGAAGTGCCCTGCAGTATTCTGCACAGACGTGAATGCCAATGGGAGGGTTAACT  
GAATCCAAGGTTGCTCTTAAATGTAGTTTTATCCTTAATGAGAGTCCCAGGCAACAGTGACTGTAATCATTAAAAGTTC  
TAAGTAAACAAAGGGAATTCTGCTGCTCTGTGCTGCAAAGACCGCAGGTTACAGTCACGTCCTCCTCGTTGTTACATT  
TACGCCCGTTTCTCACCCCTGATGGACTCAAGGCCGAGGAGAGGGCTGTTACAATAAGGAAAGAAGCCTGTAGTGG  
GGACCTCTTCTCCACATTCCACCTGCTGGCACAAGGACAGAGAAGAAAAGGACAAAAGTTGTCCATACCTGGGCTGC  
TGTGAAGGGAGGCTACTGGACCTAGTGTGCTGTGATTTTTTTTCTGAAGCTAATCCAAGACATCTTGTGCCTCCCTC  
CGTCCCTCCCTTCTGCTATTTTGCACCTTAGGTTCACTGGGGAGTTCTATGGCAGGAAGGCTTGATTTTATTAACAGT  
GAGAGGGTTCCCTGTTTGCACAGTGCCAGGATCCAGCCTGCAACTCCTGGGCTCAGGTAAGTGCACTAAAGGATATTTT  
TTCACATTCAGCACCCGGGTTCTGAGGTAGCCACGTGTGGTATAAAGCCCTGGGTAAGAACAGAGATAATCTGCTTCTT  
AACTTTTTTTTCTAAAGGACAAACCAGGTGCGGTGGTTTCATGCCTGTAATGTCACACTGTGTAATGTAATGACACAAAA  
GGTTTGGGCTACAGAGTAAGTTCCAGGACAGACAGCCTGGGCTATAGTATGAGACTGTCAGACAGACACACAGACACA  
CACAGACATGCACAGAGACACACATACATAGGAAGGGAAATGAGGAAGGGAGGGAAGGAGTGAGGGAGGGGAGAG  
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TGGCCTAGGAAGAGGCATTTTAAAAAAGAGGATAAATCACAATAAACAGACCTTTCTAGAAAAGCTTAT  
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TTGAAGAAAAGATGCCTACTGTAAACATTGTATCAAATACATGGGAGAAATAAATGAAGCCAACTTAGTGTAAGGAATG  
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TCCCCAGCACTTGGAGTGCTGGGGCAGGACCATGAGTTCTAAGCCGGTCTGAGCTGCATAGAGAGACCCTGACTGGGA  
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AGAAGGTGGGAAGTGAGGCAGAACACCGGTAAAGCCCGGAAAGTCAATCTAGGGTCTACCAGTGGCTTCTGCACCCA  
GCAGCAGGAGTGACGACTGCAGAGAACTACTGGGTTGGCGCTAAGAAAAGTCAAGTGCCTGAAGTGAGTGCCCTTG  
TGACTGAGGGAAACCTTGGGAAACACTTTCAGTATCCCATCATTCTCTGCAGCTTTCACCAGAGGGCGACATCATCTTT  
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TCAGCACCCACATCTGGTGGCCTGTAACACCAGCTCCAGCAATGTCTGATGCTCCGGCCTCAAAGGGTTTTTATGTTTGT  
GTGTTATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT  
AATAGCTACAAATGTGTAACCAGCACTACAAAGACATCTTTCCTCAGAGAAAGCCTCTTACTACATCATTCTATACAT  
TAACATGTTTGCCTATTTGCATACATTTCTAGTTTTTTTATAATATACATACATTAACATCCTCATAATGTGCCTGATTTTA  
AAAATGTTAAACCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT  
GAAAGGGGACTCCAATCTCCTGTAGCTGAAGCTATAGGTAGCTACCTCCTGTGGGTGCTGAGAGCTGAAGGCCAGTCTCT  
CCACAAGAGCACTGCGTGAACCTTAGCTGCTGAGCCATCTCTCCAGCCCGATTTTAGTTCTTTTTGTTTGGCTGGGTCTTT  
TGAGACAGAGTCTCATCTGTACCCAAGCTGGTCTTGAACCTACCATCCTTCTGCCTTCATGCATCTTTTACATATTTTAC  
TGACCTTCATGATATTCTCAGCACTTACGCACTGGTCTACTTCCCAAGGCTATTCTCAAGCATTACATATTGTGCCCTTTT  
CCACCTTAGCAGAAAATACTGCAGTTACCGTTGGCACACAGATCTTTGCTGTATTATGAATAACTGCAGAGATGGTACT

[illegible]

[illegible]

[illegible]



[illegible]

AGTATACCTCCCCAAGTCACTCTTGATTATGGTCTTTTCATGACAGTGGGAAGCGAACTGGGGCAGTAAGGAAAGTCTT  
TTGAATATTTTTGTGGATATTTGGAATTTCCAGATTTTGGCAGGAATCAATTGCATACGTGGCTGTGGGCCATAGGATA  
GGAGGCCCAAATATGTATCTATACGAAGTACCCTTTTAGACTTTGTTGAGTTGTGATTAGGAATTTCTTAATGTTCTCTG  
AGAAAGCCAAGGAAGGCTGTAGGTGGAGGCTATGAGGAAACAAAGTATTCTAAAGTGGTTTGGGAGTGGGGTTTTAA  
GCCATTTATGAATGCTCCAAAGAGATAGTTGAAGTCACTGTGGACAGCACTATGTGCTGAAGCACAGGTATGTGACACT  
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GTAATCTCCACCTCTCTACGGAGAGTGTCTCAGTCTGTTGAAAGTCGCTCACAGTGAGCTGGGGCTCCAGCATCAATC  
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CTGGCATCCTCAGCCAGCCTTGGGGCCAGTCTAGACTAGAAACCACTGCCACCTAGTGGAGCCTGATGGTAGAACA  
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TGGTTCAAAAGACTATACAGAAAACCTGCTTCCAGTTTTGGGCTCTGAGATTTGTATGCAACCATCTAATTCCGTGCTCT  
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CCCATCCATTCTGTTCCTATGACTGCCTGCCGGCCAGGCTGGAGAGCCCTCTTTGC

#### **Selection Cassette:**

CGCTCTAGAGGCCATAGCGGCCATTTAAATGGCGCGCCGGATCCGAATTCCTCGAGGCTAGAACTAGCGATAAGCTTC  
GAGCGGGATCAATTCCGCCCCCCCCCTAACGTTACTGGCCGAAGCCGCTTGAATAAAGCCGGTGTGCGTTTGTCTATA  
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GTTTTCTTTATGGCAGGGTGAAACGCAGGTGCGCAGCGGCACCGCGCCTTTGCGCGGTGAAATTATCGATGAGCGTGGTG  
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TGCGGTGGTTGAACTGCACACCGCCGACGGCACGCTGATTGAAGCAGAAGCCTGCGATGTGCGTTTTCCGCGAGGTGCG  
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CAGCAGTTTTTCCAGTTCCGTTTATCCGGGGCAAACCATCGAAGTGACCAGCGAATACCTGTTCCGTCATAGCGATAACG  
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GCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCTATCTCACCTTGCTCCTGCCGAGAAA  
GTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCTACCTGCCCATTCGACCACCAAGCGAAAC  
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CCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCG  
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CACACATTCCACATCCACCGGTAGGCGCCAACCGGCTCCGTTCTTTGGTGGCCCCCTTCGCGCCACCTTCTACTCCTCCCC  
TAGTCAGGAAGTTCCCCCCCCGCCCCGAGCTCGCGTCTGTGCAGGACGTGACAAATGGAAGTAGCACGTCTCACTAGTCT  
CGTGCAGATGGACAGCACCGCTGAGCAATGGAAGCGGGTAGGCCTTTGGGGCAGCGGCCAATAGCAGCTTTGCTCCTT  
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CCACATCGAGCGGGTCACCGAGCTGCAAGAACTCTTCTCACGCGCGTCTGGGCTCGACATCGGCAAGGTGTGGGTGCG  
GGACGACGGCGCAGCAGTGGCGGTCTGGACCACGCCGGAGAGCGTGAAGCGGGGGCGGTGTTCCGCCGAGATCGGCC  
CGCGCATGGCCGAGTTGAGCGGTTCCCGGCTGGCCGCGCAGCAACAGATGGAAGGCCTCCTGGCGCCGACCGGCCCA  
AGGAGCCCGCGTGGTTCCTGGCCACCGTCGGTGTCTCGCCCGACCACCAGGGCAAGGGTCTGGGCAGCGCCGTCGTGC  
TCCCCGGAGTGGAGGCGGCCGAGCGCGCGGGGTGCCCGCCTTCTGGAGACCTCCGCGCCCCGCAACCTCCCCTTCTA  
CGAGCGGCTCGGCTTACCGTACCGCCGACGTGAGGTGCCCGAAGGACCGCGCACCTGGTGCATGACCCGCAAGCC  
CGGTGCCTGACGCCCCGCCACGACCCGACGCGCCGACCGAAAGGAGCGCACGACCCCATGCATCGATGATCTAGAG  
CTCGCTGATCAGCCTCGACTGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGGCCCTCCCCCGTGCCTTCCTTGACCCTGG  
AAGGTGCCACTCCCCTGTCTTTCTAATAAAATGAGGAAATTGCATCGCATTGTCTGAGTAGGTGTCATTCTATTCTG  
GGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGGAAGACAATAGCAGGCATGCTGGGGATGCGGTGGGCTC  
TATGGCTTCTGAGGCGGAAAGAACCAGCTGATTACCCTGTTATCCCTACTCGACCTCAAGGGCGCGCCATTTAATGGCC  
AGCGAGGCCGGTACCCAATTGCCCCTATAG

### **Targeted Locus:**

TATAAATCATCAAAATAGAACAATTCTAAAAGGATGTATTCAGTGGGGGCTGTCGTCCAAGTCTAGTGGCATATTTCCA  
GGAGCAGGTTAATAAAATCTTTAACGGTCAGTGCTCTTAACCGCTGAACTAACTCTCCAGCCCCATGGTCAGTTATTATTT  
AACATCTAGTGCCTGATTTTTTATAATCTTCAATGTATAAATTTAACTATTGTAATTCTTTTGTGTTTGTGTTGCTTGT  
TTTGGTTTTTTGTTTTGGTTTTTCGAGACAGGATTTCTCTGTGTAGTCTAGCTGTCTGGAACCTCACTCTGTAGACCAGGC  
TGTCTTGAACTCAGAAATCCGCCTGCCTCTGCCTCCCAAGTGCTGGGATTAAAGGCATGCACCACCACGCCTGGCTAC  
TAATTCTTTCTAATTAAAGCTTTCTTTACCATAAAACCAAAATTCACCTCCAATGACACATGTGTAGCCATATGAAATTTT

ATTGTTGGGGAAGTTTTTAATCATAATAGTTTTGTAAATGATTTAGAAAAGTAAAGCATTGATTTCCCTGGGAATAAGGT  
CATGTTAGTGGCCCCATCTCTAGGGATGTTTTCTTACCCATTATTCTCACTTAAGATCTTGGCCTAGGCTACCAGGAACA  
TGTAATAAGAAAAGGAATAAGAGAAAACAAAAGATAGATTGCCATGAGAACTATGGCTCAATTTTTTCTCCGGC  
GAAGAGTTCCACAACCGGTTCAAGGAGGCTCCCCCTTTTGAGGTCAATCGCCTCAGTCTGTGGAACCTGTACACAGAT  
CCTACTGGAGGTGGTGTAGTAGTCCCTCATTCTTTGTCAATTGAACCTCTCCAATCCTATCAAATCAGATTTCTTAAA  
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