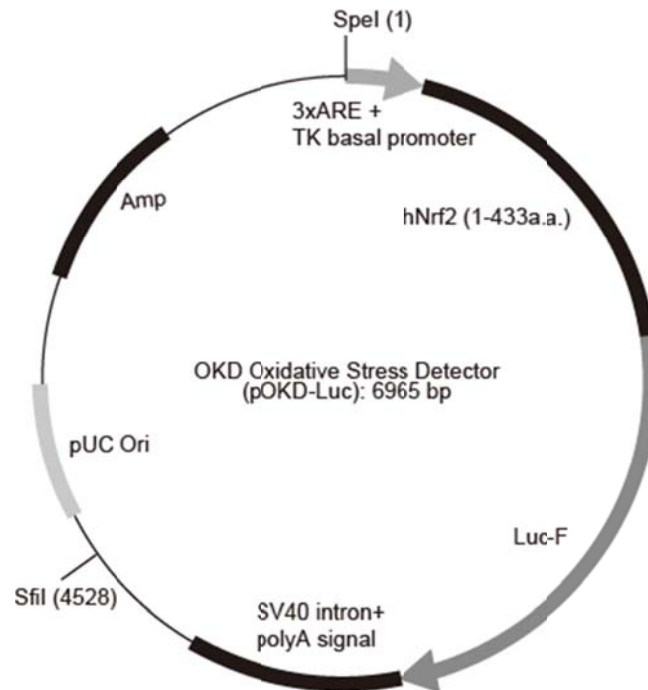


## OKD Oxidative Stress Detector

(pOKD-Luc, Pro. No. StDtc-3)

Plasmid Information



3xARE+TK basal promoter: 1-281 bp.

h(human)Nrf2 : 296-1595 bp.

Luc (luciferase): 1601-3248 bp.

SV40 intron and polyA signal: 3295-3551 bp.

SEQUENCE:

actagtGGAAATGACATTGCTAATGGTGACAAAGCAACTTTtctagtGGAAAT  
GACATTGCTAATGGTGACAAAGCAACTTTtctagtGGAAATGACATTGCTA  
ATGGTGACAAAGCAACTTTtctagaGGCCCCGCCAGCGTCTTGTCATTGG  
CGAATTCGAACACGCAGATGCAGTCGGGGCGGCGCGGTCCGAGGTCCA  
CTTCGCATATTAAGGTGACGCGTGTGGCCTCGAACACCGAGCGACCCTG  
CAGCGACCCGCTTAACAGCGTCAACAGCG*aagctt*CTA*aggtacc*ATGATGGAC  
TTGGAGCTGCCGCCGGGACTCCCGTCCCAGCAGGACATGGATTTG  
ATTGACATACTTTGGAGGCAAGATATAGATCTTGGAGTAAGTCGAGAAG  
TATTTGACTTCAGTCAGCGACGGAAAGAGTATGAGCTGGAAAAACAGAA  
AAAACTTGAAAAGGAAAGACAAGAACAACTCCAAAAGGAGCAAGAGAA  
AGCCTTTTTTCGCTCAGTTACAACTAGATGAAGAGACAGGTGAATTTCTC  
CCAATTCAGCCAGCCCAGCACATCCAGTCAGAAACCAGTGGATCTGCCA  
ACTACTCCCAGGTTGCCCACATTCCCAAATCAGATGCTTTGTACTTTGAT  
GACTGCATGCAGCTTTTGGCGCAGACATTCCCGTTTGTAGATGACAATG  
AGGTTTCTTCGGCTACGTTTCAGTCACTTGTTCCCTGATATTCCCGGTCAC  
ATCGAGAGCCCAGTCTTCATTGCTACTAATCAGGCTCAGTCACCTGAAA  
CTTCTGTTGCTCAGGTAGCCCCTGTTGATTTAGACGGTATGCAACAGGA  
CATTGAGCAAGTTTGGGAGGAGCTATTATCCATTCCCTGAGTTACAGTGT  
CTTAATATTGAAAATGACAAGCTGGTTGAGACTACCATGGTTCCAAGTC  
CAGAAGCCAAACTGACAGAAGTTGACAATTATCATTTTTACTCATCTATA  
CCCTCAATGGAAAAAGAAGTAGGTAACTGTAGTCCACATTTTCTTAATG  
CTTTTGAGGATTCCTTCAGCAGCATCCTCTCCACAGAAGACCCCAACCA  
GTTGACAGTGAACTCATTAAATTCAGATGCCACAGTCAACACAGATTTT  
GGTGATGAATTTTATTCTGCTTTCATAGCTGAGCCCAGTATCAGCAACAG  
CATGCCCTCACCTGCTACTTTAAGCCATTCACTCTCTGAACTTCTAAATG  
GGCCATTGATGTTTCTGATCTATCACTTTGCAAAGCTTTCAACCAAAC  
CACCCTGAAAGCACAGCAGAATTCAATGATTCTGACTCCGGCATTTCAC  
TAAACACAAGTCCCAGTGTGGCATCACCAGACACTCAGTGGAATCTTC  
CAGCTATGGAGACACACTACTTGGCCTCAGTGATTCTGAAGTGGAAGAG  
CTAGATAGTGCCCCTGGAAGTGTCAAACAGAATGGTCCTAAAACACCAG  
TACATTCTTCTGGGGATATGGTACAACCCTTGTCCACCATCTCAGGGGCA  
GAGCACTCACGTGCATGATGCCCAATGTGAGAACACACCAGAGAAAGA

ATTGCCTGTAAGT<sup>ctcgag</sup>GAAGATGCCAAAAACATTAAGAAGGGCCCAGC  
GCCATTCTACCCACTCGAAGACGGGACCGCCGGCGAGCAGCTGCACAA  
AGCCATGAAGCGCTACGCCCTGGTGCCCGGCACCATCGCCTTTACCGA  
CGCACATATCGAGGTGGACATTACCTACGCCGAGTACTTCGAGATGAGC  
GTTTCGGCTGGCAGAAGCTATGAAGCGCTATGGGCTGAATACAAACCATC  
GGATCGTGGTGTGCAGCGAGAATAGCTTGCAGTTCTTCATGCCCGTGTT  
GGGTGCCCTGTTTCATCGGTGTGGCTGTGGCCCCAGCTAACGACATCTAC  
AACGAGCGCGAGCTGCTGAACAGCATGGGCATCAGCCAGCCCACCGTC  
GTATTCGTGAGCAAGAAAGGGCTGCAAAGATCCTCAACGTGCAAAG  
AAGCTACCGATCATAAAAAGATCATCATCATGGATAGCAAGACCGACT  
ACCAGGGCTTCCAAAGCATGTACACCTTCGTGACTTCCCATTGTCACC  
CGGCTTCAACGAGTACGACTTCGTGCCCGAGAGCTTCGACCGGGACAA  
AACCATCGCCCTGATCATGAACAGTAGTGGCAGTACCGGATTGCCCAAG  
GGCGTAGCCCTACCGCACCGCACCGCTTGTGTCCGATTCAGTCATGCC  
GCGACCCCATCTTCGGCAACCAGATCATCCCCGACACCGCTATCCTCAG  
CGTGGTGCCATTTACCACGGCTTCGGCATGTTACCACGCTGGGCTAC  
TTGATCTGCGGCTTTCGGGTCGTGCTCATGTACCGCTTCGAGGAGGAG  
CTATTCTTGCGCAGCTTGCAAGACTATAAGATTCAATCTGCCCTGCTGG  
TGCCACACTATTTAGCTTCTTCGCTAAGAGCACTCTCATCGACAAGTA  
CGACCTAAGCAACTTGACAGAGATCGCCAGCGGCGGGGCGCCGCTCAG  
CAAGGAGGTAGGTGAGGCCGTGGCCAAACGCTTCCACCTACCAGGCAT  
CCGCCAGGGCTACGGCCTGACAGAAACAACCAGCGCCATTCTGATCAC  
CCCCGAAGGGGACGACAAGCCTGGCGCAGTAGGCAAGGTGGTGCCCTT  
CTTCGAGGCTAAGGTGGTGGACTTGGACACCGGTAAGACACTGGGTGT  
GAACCAGCGCGGCGAGCTGTGCGTCCGTGGCCCCATGATCATGAGCGG  
CTACGTTAACAACCCCGAGGCTACAAACGCTCTCATCGACAAGGACGGC  
TGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTC  
TTCATCGTGGACCGGCTGAAGAGCCTGATCAAATACAAGGGCTACCAG  
GTAGCCCCAGCCGAACCTGGAGAGCATCCTGCTGCAACACCCCAACATC  
TTCGACGCCGGGGTCGCCGGCCTGCCCGACGACGATGCCGGCGAGCTG  
CCCGCCGACGTCGTGCTGGAACACGGTAAAACCATGACCGAGAAG  
GAGATCGTGGACTATGTGGCCAGCCAGGTTACAACCGCCAAGAAGCTG  
CGCGGTGGTGTGTTGTTTCGTGGACGAGGTGCCTAAAGGACTGACCGGC

AAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGGCCAAGAAG  
GGCGGCAAGATCGCCGTGACTACAAGGATGACGATGACAAGTAAATAgc  
tagctaggtagctagaggatctttgtgaaggaaccttacttctgtggtgtgacataattggacaaactaccta  
cagagatttaaagctctaaggtaaatataaaaattttaagtgtataatgtgttaaactactgattctaattgt  
ttgtgtattttagattccaacctatggaactgatgaatgggagcagtgggtggaatgcctttaatgaggaaa  
cctgttttgctcagaagaaatgccatctagtgatgatgaggctactgctgactctcaacattctactctccaa  
aaaagaagagaaaggtagaagaccccaaggactttccttcagaattgctaagtttttgagtcattgctgtgt  
ttagtaatagaactcttgcttgctttgctatttacaccacaaaggaaaaagctgactgctatacaagaaat  
tatggaaaaatatttgatgtatagtgccttgactagagatcataatcagccataccacattttagaggtttt  
acttgctttaaaaaacctcccacacctcccctgaacctgaaacataaaatgaatgcaattgtgtgttaact  
tgtttattgcagcttataatggttacaaataaagcaatagcatcacaatttcacaaataaagcattttttc  
actgcattctagtgtggtttgtccaaactcatcaatgtatcttatcatgtctggatcagcttcagaagatgggc  
gaggcctccaacacagtaattttctcccactcttaaaatagaaaatgtcaagtcagttaaggaggaagt  
ggactaactgacgcagctggcctgacacatctcttttaattagttgctaggcaacgcctccagaggcgt  
gtggtttgcaagaggaagcaaaaagcctctccaccaggcctagaatgttccaccaatcattactatgaca  
acagctgttttttagtattaagcagaggccggggaccctgggcccgttactctggagaaaaagaagag  
aggcattgtagaggctccagaggcaacttgtcaaacaggactgcttctatttctgtcacactgtctggcct  
gtcacaaggtccagcaactccatacccccttaataagcagtttgggaacgggtgcggttctactccgccc  
cccgccctaaactccgccagttccgccattctccgccatggctgactaatttttttattatgcagaggcc  
gaggccgctcggcctctgagctattccagaagtagtgaggaggctttttggaggctgcattaatgaatcgg  
ccaacgcgcggggagaggcggtttgcgtattgggcgctcttccgcttctcgtcactgactcgtcgcctcgg  
tcgttcggtgcggcgagcggtatcagctcactcaaaggcggtaatcggttatccacagaatcaggggata  
acgcaggaaagaacatgtgagcaaaaaggccagcaaaaaggccaggaaccgtaaaaaggccgcttgctgg  
cgttttccataggtccgccccctgacgagcatcacaataatcgacgctcaagtcagagggtggcgaaacce  
gacaggactataaagataccaggcggtttcccctggaagctccctcgtgcgctctcctgttccgacctgccc  
taccggatacctgtccgcttttctccctcgggaagcgtggcgctttctcaatgctcacgctgtaggtatctcag  
tcggtgtaggtcgttcgctccaagctgggctgtgtgcacgaacccccgttcagcccagcctgccccttacc  
ggtaactatcgttctgagccaacccggtaagacacgaactatcgccactggcagcagccactggtaacagg  
attagcagagcgaggtatgtaggcggtgctacagagttctgaagtgggtggcctaactacggctacactaga  
agaacagtatttggtatctgcgctctgctgaagccagttaccttcggaaaaagagttggtagctcttgatccg  
gcaaacaaaccacctggtagcggtggtttttgtttgcaagcagcagattacgcgcagaaaaaaagga  
tctcaagaagatcctttgatctttctacggggtctgacgctcagtggaacgaaaactcacgttaagggtttt  
ggctcatgagattatcaaaaaggatcttcactagatccttttaattaaatgaagtttaaatcaatctaa

agtatatatgagtaaacttggctgacagttaccaatgcttaatcagtgaggcacctatctcagcgatctgtct  
atctcgctcatccatagttgctgactccccgctgtagataactacgatacgggagggcttaccatctggcc  
ccagtgctgcaatgataccgagaccacgctcaccgctccagatttatcagcaataaaccagccagccc  
gaagggccgagcgcagaagtggctctgcaactttatccgcctccatccagtctattaattggtgcccgggaagc  
tagagtaagtagttcgccagttaatagtttgcgcaacggttgcttaccattgctacagggatcggtggtgacgct  
cgctggttgatggcttaccagctccggttcccaacgatcaaggcgagttacatgatccccatggttgca  
aaaaagcggtagctccttcggtcctccgatcggtgtagaagtaagttggccgagtggtatcactcatggtt  
atggcagcactgcataattctcttactgtcatgccatccgtaagatgcttttctgtgactggtagtactcaacc  
aagtcattctgagaatagtgtagcggcgaccgagttgctcttgcggcgtaatacgggataataccgccc  
cacatagcagaactttaaaagtgtcatcattggaaaacgcttcttcggggcgaaaactctcaaggatcttac  
cgctggtgagatccagttcgatgtaaccactcgtgcaccaactgatcttcagcatctttactttcaccagcg  
ttctgggtgagcaaaaacaggaaggcaaaatgccgcaaaaaagggaataagggcgacacggaaatggt  
gaatactcactcttcttttcaatattattgaagcatttatcagggttattgtctcatgagcggatacatat  
ttgaatgtatttagaaaaataaacaataggggttccgcgcacatttccccgaaaagtccacctgacgtct  
aagaaaccattattatcatgacattaacctataaaaatagggctatcacgaggcccttcgtctcgcgcttc  
ggtagtgacggtgaaaacctctgacacatgcagctcccggagacggtcacagcttgctgtaagcggatgcc  
gggagcagacaagcccgtcagggcgctcagcgggtggtggcgggtgctggggctggcttaactatgcggc  
atcagagcagattgtactgagagtgacccatatgcgggtgtgaaataccgcacagatgcgtaaggagaaaa  
taccgatcagggccattcgcattcaggctgcgcaactggtggaagggcgatcgggtgcccgcctcttcgc  
tattaccgagcgcggtgacattgattattg//

3xARE element (underline) and TK basal promoter is indicated in red.

The start codon of ATG is indicated by double underline.

Blue shows human Nrf2 (1-433a.a.).

Bold indicates luciferase (GL4, promega).

Green color sequences are for DYKDDDDK tag.

Orange color sequences are SV40 intron and polyA signal.