**Synthetic TkGs Gene:**

> - 2007 nucleotides

**atg**gcgcattcaatcgaggagttggcgattacgacgattcgaacgctgtc

gattgacgcgatcgaaaaagcgaaatccgggcatccgggcatgccgatgg

gcgcggcgccaatggcgtacacgctttggacgaaatttatgaatcataac

ccggcgaatccaaactggttcaaccgcgaccgttttgtcttgtcagccgg

gcacgggtcgatgttattgtacagcttgcttcatttaagcggctacgacg

tatcgatggatgatttgaaacaattccgtcaatggggaagcaaaacgccg

ggccatccggaatacggccatacgccgggcgtggaagcgacgaccggccc

actcggccaagggattgcgatggcggtcggcatggcgatggcggaacggc

atttggccgctacatacaaccgcgacgggtttgagattatcaatcattat

acgtacgccatttgcggcgatggcgatttgatggaaggagtggcgagcga

agctgcgtcactcgccggccacttgaagctcggtcgactgatcgtcctgt

atgactcgaacgacatttcgctggacggggagctcaacctgtcgttctcg

gaaaacgtcgcccaacgtttccaagcatacggctggcaatatttgcgcgt

tgaggacggcaacaatattgaagaaatcgccaaagcgctggaggaggcgc

gggcggacctcagccggccgacgctcattgaagtaaaaacgacgattggc

tacggcgcgccaaataaagcgggcacgtccggcgtccacggtgctccgct

cggcgcccaagaggcgaagctgacgaaagaggcgtatcgttggacatttg

cggaagatttttacgtgccagaagaagtgtacgcccacttccgtgcgacg

gtgcaagagccgggagcgaaaaaagaggcgaaatggaatgagcagctcgc

cgcctatgaacaggcccatccggaactggccgcccaattgaagcgagcga

tcgaaggcaaacttccagatggatgggaagcttctttgccggtatacgaa

gcaggcaaaagcttggcaacccgctcatcgtccggggaagtgatcaacgc

catcgccaaagcggtaccgcaattgtttggcggttcggcggacttggcaa

gctcgaataaaacgctcatcaaaggcggcggcaacttcttcccgggcagc

tacgaagggcgcaacgtttggtttggcgtgcgcgagtttgccatgggggc

ggcgctgaacggcatggcgcttcacggcgggctgaaagtgttcggcggca

cgttcttcgtgttctctgactatttgcgtccggcgatccgcttggcggcg

ctgatgggcttaccggtcatctacgtcttgacgcacgacagcatcgccgt

cggcgaagacgggccgacgcacgagccgatcgaacagctagcttcgcttc

gggcgatgccgaacttgtcggtcatccgtccggctgacgcaaacgaaacg

gcggcagcatggcggctggcgctcgaatcgacggacaagccgactgcgct

cgtcttgacgcgtcaagatgtgccgacgttggcggcaacagctgagttgg

cgtatgaaggcgtgaaaaaaggtgcatacgtcgtttcaccggcgaaaaac

ggcgctccggaggcgctgttgttggcgactggctcggaagtcggtctggc

cgtaaaagcgcaagaagcgctcgccgctgagggcatccatgtctccgtca

tcagcatgccatcgtgggaccgcttcgaagcgcagccaaaatcgtaccgc

gatgaagtgcttccgccggccgtgacgaagcggctcgccattgaaatggg

cgcgtcgctcggttgggagcgctacgtcggcgccgagggcgacattttgg

ccatcgaccgattcggtgcttccgctccgggagagaaaatcatggccgag

tatggctttacggttgacaacgtcgtccgccgcacaaaagcgctgctcgg

caag**taa**

**Aminoacids:**

MAHSIEELAI TTIRTLSIDA IEKAKSGHPG MPMGAAPMAY TLWTKFMNHN PANPNWFNRD

RFVLSAGHGS MLLYSLLHLS GYDVSMDDLK QFRQWGSKTP GHPEYGHTPG VEATTGPLGQ

GIAMAVGMAM AERHLAATYN RDGFEIINHY TYAICGDGDL MEGVASEAAS LAGHLKLGRL

IVLYDSNDIS LDGELNLSFS ENVAQRFQAY GWQYLRVEDG NNIEEIAKAL EEARADLSRP

TLIEVKTTIG YGAPNKAGTS GVHGAPLGAQ EAKLTKEAYR WTFAEDFYVP EEVYAHFRAT

VQEPGAKKEA KWNEQLAAYE QAHPELAAQL KRAIEGKLPD GWEASLPVYE AGKSLATRSS

SGEVINAIAK AVPQLFGGSA D**L**ASSNKTLI KGGGNFFPGS YEGRNVWFGV REFAMGAALN

GMALHGGLKV FGGTFFVFSD YLRPAIRLAA LMGLPVIYVL THDSIAVGE**D** GPTHEPIEQL

ASLRAMPNLS VIRPADANET AAAWRLALES TDKPTALVLT RQDVPTLAAT AELAYEGVKK

GAYVVSPAKN GAPEALLLAT GSEVGLAVKA QEALAAEGIH VSVISMPSWD RFEAQPKSYR

DEVLPPAVTK RLAIEMGASL GWERYVGAEG DILAIDRFGA SAPGEKIMAE YGFTVDNVVR

RTKALLGK