



5' ... AGATCTAACATCCAAAGACGAAAGGTTGAATGAAACCTTTTTGCCATCCGACATCCACAGGTCCATTCTCACACA 75

3' TCTAGATTGTAGGTTTCTGCTTTCCAACCTACTTTGGAAAAACGGTAGGCTGTAGGTGTCCAGGTAAGAGTGTGT

AOX1 promoter >

TAAGTGCCAAACGCAACAGGAGGGGATACACTAGCAGCAGACCGTTGCAAACGCAGGACCTCCACTCCTCTTCTC 150

ATTCACGGTTTGC GTTGTCTCCCTATGTGATCGTCTGGAACGTTTGC GTCTCTGGAGGTGAGGAGAAGAG

AOX1 promoter >

CTCAACACCCACTTTTGCCATCGAAAAACCAGCCAGTTATTGGGCTTGATTGGAGCTCGCTCATTCCAATTCT 225

GAGTTGTGGGTGAAAACGGTAGCTTTTGGTGGGTCAATAACCCGAACTAACCTCGAGCGAGTAAGGTTAAGGA

AOX1 promoter >

TCTATTAGGCTACTAACACCATGACTTTATTAGCCTGTCTATCTGGCCCCCTGGCGAGGTTTCATGTTTGTTTA 300

AGATAATCCGATGATTGTGGTACTGAAATAATCGGACAGATAGGACCGGGGGACCGCTCCAAGTACAAACAAT

AOX1 promoter >

TTTCCGAATGCAACAAGCTCCGCATTACCCCGAACATCACTCCAGATGAGGGCTTTCTGAGTGTGGGGTCAAA 375

AAAGGCTTACGTTGTTTCGAGGCGTAATGTGGGCTTGTAGTGAGGTCTACTCCGAAAGACTCACACCCAGTTTA

AOX1 promoter >

AGTTTCATGTTCCCAAATGGCCCAAACCTGACAGTTTAAACGCTGTCTTGGAACTAATATGACAAAAGCGTGA 450

TCAAAGTACAAGGGGTTTACCGGGTTTGGACTGTCAAATTTGCGACAGAACCTTGGATTATACTGTTTTCGCACT

AOX1 promoter >

TCTCATCCAAGATGAACTAAGTTTGGTTTCGTTGAAATGCTAACGGCCAGTTGGTCAAAAAGAACTTCCAAAAGT
AGAGTAGGTTCTACTTGATTCAAACCAAGCAACTTTACGATTGCCGGTCAACCAGTTTTTCTTTGAAGGTTTTCA
AOX1 promoter

CGGCATACGTTTGTCTTGTGGTATTGATTGACGAATGCTCAAAAATAATCTCATTAAATGCTTAGCGCAGTCT
GCCGTATGGCAAACAGAACAACCATAACTAAGTCTTACGAGTTTTTATTAGAGTAATTACGAATCGCGTCAGA
AOX1 promoter

CTCTATCGCTTCTGAACCCCGGTGCACCTGTGCCGAAACGCAAATGGGGAAACACCCGCTTTTTGGATGATTATG
GAGATAGCGAAGACTTGGGGCCACGTGGACACGGCTTTGCGTTACCCCTTTGTGGGCGAAAAACCTACTAATAC
AOX1 promoter

CATTGTCTCCACATTGTATGCTTCCAAGATTCTGGTGGGAATACTGCTGATAGCCTAACGTTTCATGATCAAAATT
GTAACAGAGGTGTAACATACGAAGGTTCTAAGACCACCCTTATGACGACTATCGGATTGCAAGTACTAGTTTTAA
AOX1 promoter

TAACTGTTCTAACCCCTACTTGACAGCAATATATAACAGAAGGAAGCTGCCCTGTCTTAAACCTTTTTTTTTAT
ATTGACAAGATTGGGGATGAACTGTCGTTATATATTTGCTTCTTCGACGGGACAGAATTTGGAAAAAAAATA
AOX1 promoter

CATCATTATTAGCTTACTTTTCATAATTGCGACTGGTTCCAATTGACAAGCTTTTGATTTTAAACGACTTTTAAACGA
GTAGTAATAATCGAATGAAAGTATTAACGCTGACCAAGGTTAACTGTTTGGAAAACCTAAAATTGCTGAAAATTGCT
AOX1 promoter

CAACTTGAGAAGATCAAAAAACAACATAATTTCGAAGGATCCAAACGATGAGATTTCTTCAATTTTTACTGCA
GTTGAACTCTTCTAGTTTTTTGTTGATTAATAAGCTTCTAGGTTTGCTACTCTAAAGGAAGTTAAAAATGACGT
AOX1 promoter
1 5
Met Arg Phe Pro Ser Ile Phe Thr Ala
alpha-factor secretion signal

GTTTTATTCGCAGCATCCTCCGCATTAGCTGCTCCAGTCAACACTACAACAGAAGATGAAACGGCACAATTCGG
CAAATAAGCGTCGTAGGAGGCGTAATCGACGAGGTCAGTTGTGATGTTGTCTTCTACTTTGCCGTGTTAAAGC
10 15 20 25 30
Val Leu Phe Ala Ala Ser Ser Ala Leu Ala Pro Val Asn Thr Thr Glu Asp Glu Thr Ala Gln Ile Pro
alpha-factor secretion signal

GCTGAAGCTGTCATCGGTTACTCAGATTTAGAAGGGGATTTTCGATGTTGCTGTTTTGCCATTTTCCAACAGCACA
CGACTTCGACAGTAGCCAATGAGTCTAAATCTTCCCCTAAAGCTACAACGACAAAACGGTAAAAGGTTGTCGTG
35 40 45 50 55
Ala Glu Ala Val Ile Gly Tyr Ser Asp Leu Glu Gly Asp Phe Asp Val Ala Val Leu Pro Phe Ser Asn Ser Thr
alpha-factor secretion signal

AATAACGGGTTATTGTTTATAAATACTACTATTGCCAGCATTGCTGCTAAAGAAGAAGGGGTATCTCTCGAGAAA
TTATTGCCAATAACAAATATTTATGATGATAACGGTCGTAACGACGATTTCTTCTTCCCATAGAGAGCTCTTT
60 65 70 75 80
Asn Asn Gly Leu Leu Phe Ile Asn Thr Thr Ile Ala Ser Ile Ala Ala Lys Glu Glu Gly Val Ser Leu Glu Lys
alpha-factor secretion signal

AGAGAGGCTGAAGCTTACGTAGAATTCCCTAGGGCGGGCGCAATTAATTCGCCTTAGACATGACTGTTCTCAG
TCTCTCCGACTTCGAATGCATCTTAAGGGATCCC GCGGGCGCTTAATTAAGCGGAATCTGTACTGACAAGGAGTC
85
Arg Glu Ala Glu Ala Tyr Val Glu Phe Pro Arg Ala Ala Ala Asn

alpha-factor secretion signal (in frame with alpha-factor secretion signal)

MCS