

Primers used for gene cloning into the plasmid p426HXT7-6His

Primer	Sequence (5'-3')
xltA_FW	GAGAACTAGTATGGGGATGGGTGCCGG
xltA_RV	GAGACTCGAGCTACGCCGAGGGAGGAGT
xltB_FW	CGATAAGCTTGATATCGAATTCCTGCAGCCCGGGGATCCAGTCCTCGAGCCCTCACATGATGGATAAG
xltB_RV	ACTCACTATAGGGCGAATTGGGTACCGGGCCCCCCCCTCGAGCGCATCGATTTAGGCCTCAATTACGG
xltC_FW	CGATAAGCTTGATATCGAATTCCTGCAGCCCGGGGATCCATGCCTCGAGATGGCTATCGGCAATCTTTAC
xltC_RV	ACTCACTATAGGGCGAATTGGGTACCGGGCCCCCCCCTCGAATCGATCACCTCAAGCAATCTTATCC
str1_FW	CAAAAAGTTAACATGCATCACCATCACCATCACACTAGTATGGGCGCGCACACCGAC
str1_RV	GACATAACTAATTACATGACTCGAGGTCGACGGTATCGATTCAAGCGGCCTTCTCAGC
str2_FW	CAAAAAGTTAACATGCATCACCATCACCATCACACTAGTATGTCGTCAAATCCAGCA
str2_RV	GACATAACTAATTACATGACTCGAGGTCGACGGTATCGATTGACATATTCTTCAGC
str3_FW	CAAAAAGTTAACATGCATCACCATCACCATCACACTAGTATGACCGTTACCTTCGAC
str3_RV	GACATAACTAATTACATGACTCGAGGTCGACGGTATCGATTTAGACATGCTCCTCGTG

The primer pair names indicate the amplified gene in each case

Primers used for RT-qPCR analysis

Primer	Sequence (5'-3')
xltA-RTqPCR_FW	TTCTACGACTACCTCTCGCTCGTC
xltA-RTqPCR_RV	AAAGCATGACCAAGCACGCAAC
xltB-RTqPCR_FW	AAGGTGGTGGACTCAAGAACGC
xltB-RTqPCR_RV	AGGGCATTGATTCCAACGAACTG
xltC-RTqPCR_FW	TGGTCGTCGTACTGCCATTCTAG
xltC-RTqPCR_RV	ACAATGATGGATCCAATGCACCAG
hist-RTqPCR_FW	ATCTTGCGTGACAACATCCA
hist-RTqPCR_RV	CACCCTCAAGGAAGGTCTTG
str1-RTqPCR_FW	CACGTGCCACATCATCATCG
str1-RTqPCR_RV	CTCCCAGAGAAACACCATAAGG
str2-RTqPCR_FW	CGGAGTGTACGGAATTGTCAAC
str2- RTqPCR_RV	GGAGTAGGAGAAGTTGATGTCG
str3-RTqPCR_FW	ATCGTCTTCGCCTGTCTCTTC
str3-RTqPCR_RV	CAAAGTTGCAGGCAGCGAAG
sar1-RTqPCR_FW	TGGATCGTCAACTGGTTCTACGA
sar1- RTqPCR_RV	GCATGTGTAGCAACGTGGTCTTT
act1-RTqPCR_FW	TGAGAGCGGTGGTATCCACG
act1-RTqPCR_RV	GGTACCACCAGACATGACAATGTTG

The primer pair names indicate the amplified gene in each case

Plasmids used in this work

Name	Genotype	Description	Source/Reference
p426HXT7-6His	2μ, URA3, HXT7 _p	Used as a vector for the expression of <i>A. niger</i> transporter genes, and as an empty vector (EV) for the construction of a <i>S. cerevisiae</i> negative control strain	[59]
pRH315	CEN6, ARSH4, TRP1	Plasmid expressing the <i>P. stipitis</i> D-xylose reductase (XYL1), the <i>P. stipitis</i> xylitol dehydrogenase (XYL2), and the <i>S. cerevisiae</i> xylulokinase (XKS1) genes. Used for the construction of a <i>S. cerevisiae</i> strain able to metabolize xylose.	[39]
p426HXT7-6His-xltA	2μ, URA3	Plasmid p426HXT7-6His expressing the <i>A. niger</i> transporter gene <i>xltA</i>	This study
p426HXT7-6His-xltB	2μ, URA3	Plasmid p426HXT7-6His expressing the <i>A. niger</i> transporter gene <i>xltB</i>	This study
p426HXT7-6His-xltC	2μ, URA3	Plasmid p426HXT7-6His expressing the <i>A. niger</i> transporter gene <i>xltC</i>	This study
p426HXT7-6His-str1	2μ, URA3	Plasmid p426HXT7-6His expressing the <i>T. reesei</i> transporter gene <i>str1</i>	This study
p426HXT7-6His-str2	2μ, URA3	Plasmid p426HXT7-6His expressing the <i>T. reesei</i> transporter gene <i>str2</i>	This study
p426HXT7-6His-str3	2μ, URA3	Plasmid p426HXT7-6His expressing the <i>T. reesei</i> transporter gene <i>str2</i>	This study