

## Supplementary Data

# ***NGT1* is Essential for *N*-acetylglucosamine-mediated Filamentous Growth Inhibition and *HXK1* Functions as a Positive Regulator of Filamentous Growth in *Candida tropicalis***

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**Table S1** Primers used in this study.

<b>name</b>	<b>Sequence (5' to 3')</b>	<b>Purpose</b>
NGT1-fwd	AGTTAAGCGGCCGCATGTCTTACCCAACCTGAA G	<i>NGT1</i> overexpression
NGT1-rev	ACACTACTGCAGATTGTCTATGCTTGTCTGATG	
NGT1-UP 5'	TGTATAGGGCCCAAGCTGTACCAACTAATGG	For <i>NGT1</i>
NGT1-UP 3'	TACTAACTCGAGATGCTGTTGTTGTTGTGATG	knockout
NGT1-DOWN 5'	ATACTACCGCGGACTGTGTTGTAAGCAAATG	plasmid pSFS2A-NGT1K
NGT1-DOWN 3'	AACGTAGAGCTCCCATGATCAGTATTCAATG	O
NGT1-L 5'	GTATTGGTGCATCTATTAGTG	Fusion PCR for
NGT1-L 3'	ACAAGGCAAGCTAAACAGATCTTTAGCAACG ACTCTAGTAC	<i>NGT1</i> knockout
NGT1-R 5'	ATCCAGTGTGCGAAAACGAGCTAAATGTTGGG TGCTATTGTC	
NGT1-R 3'	TCGACTTTAGACTTGACAAC	
NGT1 5' check	ATGTATAGTCGTGTGCGATG	<i>NGT1</i> deletion
NGT13' check	TTCAAGTGCAGCGAATAAAG	confirmation (first copy)
NGT1 5' ORF	TGAGAACTAGATCATTGAATTC	<i>NGT1</i> deletion
NGT1 3' ORF	AAATAAGTGGCACGGCAATC	confirmation (second copy)
HXK1-fwd	AGTATTGCGGCCGCATGATTA AAACTACTATT GAAACTGC	<i>HXK1</i> overexpression
HXK1-rev	ATCATAGGTACCTCACTCCAACGTGTTGATTG	
HXK1-UP 5'	TCATATGGGCCCCAGACAGCGATGATGAAGAT G	For <i>HXK1</i> knockout
HXK1-UP 3'	AGTTATCTCGAGTGGAGTAGCAGTTTCAATAG	plasmid
HXK1-DOWN 5'	ATCATTCCGCGGTAGTTCAATCATTGGTGCTG	pSFS2A-HXK1K O
HXK1-DOWN 3'	ACATATGAGCTCTGACAAGTTCTTTAACCACG	
HXK1-L 5'	TGATGGAAGTTAATGATGTC	Fusion PCR for
HXK1-L 3'	ACAAGGCAAGCTAAACAGATCTGTA ACTAGT GGTTTCCAATG	<i>HXK1</i> knockout
HXK1-R 5'	ATCCAGTGTGCGAAAACGAGCTTGACGATCAC ATGAAGTTG	
HXK1-R 3'	ACATAACCAATTGTAACGTC	
HXK1 5' check	TTAACCAATTGCCAAGTTGAG	<i>HXK1</i> deletion
HXK13' check	GTTGGCTCCATCTGATTTAC	confirmation (first copy)
HXK1 5' ORF	ATGATCATGGATGTGCGTTC	<i>HXK1</i> deletion

HXK1 3' ORF	TCATAATCGTCAGTCTCGTG	confirmation (second copy)
DAC1-fwd	AGTATAGCGGCCGCATGTCTTATACTAGATTC ACTAATTGC	<i>DAC1</i> overexpression
DAC1-rev	TTCAGACTGCAGAGCCAATAACTACATTGTCCG	
DAC1-UP 5'	TAGTATGGGCCCTCTACTGTTGGCTTTAATAG	For <i>DAC1</i>
DAC1-UP 3'	AGTTATCTCGAGATGGATCATTAGGTCATCTG	knockout
DAC1-DOWN 5'	ATCATTCCGCGGTGTGCAAAAAGTCTACAAG C	plasmid pSFS2A-DAC1K
DAC1-DOWN 3'	ATTACAACAAGAGAGCTCAG	O
DAC1-L 5'	TATAAACTCCACCATGTGTC	Fusion PCR for
DAC1-L 3'	ACAAGGCAAGCTAAACAGATCTAGTCACAGT AGGACAAGTAG	<i>DAC1</i> knockout
DAC1-R 5'	ATCCAGTGTGCGAAAACGAGCTTGTACAATGC CATGCCAC	
DAC1-R 3'	TAGCCTTGTTTGTCCAATAC	
DAC1 5' check	AGCATGTCTTGGAACTTTAG	<i>DAC1</i> deletion
DAC13' check	ATCATTAGCCGCTCCATTG	confirmation (first copy)
DAC1 5' ORF	CGAATTTCCCAGAGGTTTAC	<i>DAC1</i> deletion
DAC1 3' ORF	TTCAATAGCTTGAACACCTG	confirmation (second copy)
NAG1-fwd	AGTTAAGCGGCCGCATGAGACAAGCTACTTTT TCCAG	<i>NAG1</i> overexpression
NAG1-rev	TTCAGACTGCAGTAGTTCAATCATTGGTGCTG	
NAG1-UP 5'	TAGTATGGGCCCAGAATCTCCTAAACTCAGTG	For <i>NAG1</i>
NAG1-UP 3'	AGTTATCTCGAGTGTATAGCTAAAGTGTCATG G	knockout plasmid
NAG1-DOWN 5'	ATCATACCGCGGTACTGGTGTACTCACATTG	pSFS2A-NAG1K
NAG1-DOWN 3'	AACGTAGAGCTCTGTTGATGCTAGATTCAAAC	O
NAG1-L 5'	TCCGAATTGTAATGATGATG	Fusion PCR for
NAG1-L 3'	ACAAGGCAAGCTAAACAGATCTAGTGGCCAA TCCATTCAAG	<i>NAG1</i> knockout
NAG1-R 5'	ATCCAGTGTGCGAAAACGAGCTTTATTTTGGG TGGCTTGG	
NAG1-R 3'	CTCATAGTCTACTTTGTCTTG	
NAG1 5' check	CAAGTATTTTGTGTCATGGCAT	<i>NAG1</i> deletion
NAG1 3' check	ATTTGCCACCAAGTATGATG	confirmation (first copy)
NAG1 5' ORF	TGTGCTGAATATGAAGCTAAG	<i>NAG1</i> deletion
NAG1 3' ORF	TTTAGATTTCAAGCCAGCAG	confirmation

<u>Hph-F</u>	AGATCTGTTTAGCTTGCCTTG	(second copy)
<u>Hph-R</u>	AGCTCGTTTTTCGACACTGG	Amplification
		cahph marker
		for fusion PCR
		For q-RT-PCR
NGT-F	TTGGACTTTGGAGAACTTTG	
NGT1-R	ACATTTGAGCTAACCAGTAC	
HXK1-F	AACCACTAGTTACAACAGTG	
HXK1-R	ACATCCATGATCATTCCATG	
DAC1-F	TTCTACAAAGATGCCATGAC	
DAC1-R	AGTCTGGCCATCCAATCTAG	
NAG1-F	TTGGCTCCATCTGATTTAC	
NAG1-R	TCTTAGCTTCATATTCAGCAC	
ACT1-F	TTGTACTCTTCTGGTAGAAC	
ACT1-R	AAGTGTAACCACG TTCAGAC	

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