

Supporting Material

Defining the Role of the Tension Sensor in the Mechanosensitive Channel of Small Conductance

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	Forward	Reverse
L35A	AGTAAACATCGTGGCGGCAG CCGCGATCATCATCG	CGATGATGATCGCGGCTGCC GCCACGATGTTTACT
I39A	GCGGCACTCGCCATCATCGC CGTTGGTTTGATTATCGC	GCGATAATCAAACCAACGGC GATGATGGCGAGTGCCGC
L42A	CGCAATCATCATCGTTGGTG CGATTATCGCGCGGATGATT	AATCATCCGCGCGATAATCG CACCAACGATGATGATTGCG
I43A	AATCATCATCGTTGGTTTGGC TATCGCGCGGATGATTTCC	GGAAATCATCCGCGCGATAG CCAAACCAACGATGATGATT
L42A/I43A	ACTCGCAATCATCATCGTTG GTGCGGCTATCGCGAG	CTCGCGATAGCCGCACCAAC GATGATGATTGCGAGT
R46A	GTTGGTTTGATTATCGCGGC GATGATATCCAACGCGGT	ACCGCGTTGGATATCATCGC CGCGATAATCAAACCAAC
N50A	GCGCGGATGATTTCCGCCGC GGTGAATCGCCT	AGGCGATTCACCGCGGCGGA AATCATCCGCGC
R54A	GGATGATATCCAACGCGGTG AATGCCCTGATGATCTCC	GGAGATCATCAGGGCATTCA CCGCGTTGGATATCATCC
R74A	TGCTGATTTTCTTTCTGCACT AGTCGCTTACGGTATTATCG CCTTT	AAAGGCGATAATACCGTAAG CGACTAGTGCAGAAAGAAAA TCAGCA
I78A	CTGCACTAGTCCGTTACGGT ATTGCCGCCTTTACGCTAATC	GATTAGCGTAAAGGCGGCAA TACCGTAACGGACTAGTGCA G
L82A	GTATTATCGCCTTTACGGCA ATCGCAGCCCTGGGAC	GTCCCAGGGCTGCGATTGCC GTAAAGGCGATAATAC
I44A	CGCGATCATCATCGTTGGTTT GATTGCCGCGCGGATGATA	TATCATCCGCGCGGCAATCA AACCAACGATGATGATCGCG
I48A	TTGATTATCGCGCGGATGGC TTCGAACGCGGTGAATCG	CGATTCACCGCGTTCGAAGC CATCCGCGCGATAATCAA
F68A	AATAGATGCCACTGTTGCTG ATGCTCTTTCTGCATTAGTCC G	CGGACTAATGCAGAAAGAGC ATCAGCAACAGTGGCATCTA TT
Outer cloning primers	CAATTTACACAGGAAACAG GC	TACACGGAGGCATCAGTGAC CAA

Table S1: PCR primers for MscS alanine point mutations.

	Stationary Phase Optical Density (OD ₆₀₀)
Wildtype MscS	1.8
L35A	1.3
I39A	1.8
L42A	1.3
I43A	1.7
L42A/I43A	1.7
R46A	1.8
N50A	1.7
R54A	1.7
R74A	1.8
I78A	1.8
L82A	1.8
I44A	1.6
I48A	1.5
F68A	1.8

Table S2: Stationary phase optical densities for MscS mutations. Stationary phase optical densities were obtained by growing a single colony to an OD₆₀₀ of approximately 0.5 in LB media, followed by induction with 0.1 mM IPTG for 8 hours.