

Data Sheet for Over Expressed Cell Line for TMEM63A:

Cell ID: IDG-HEK293T-TMEM63A-V5-OE

Cell Type: Stable overexpression cell line

Cryopreservation:

Freeze in complete growth medium supplemented with 10% (v/v) DMSO

Culture Conditions:

Complete Growth Medium. The base medium for this cell line is either DMEM or a-RPMI 1640 with 10% fetal bovine serum.

Description: This cell line stably expresses dark ion channel in frame with V5 tag on the C-terminus. The ion channel construct is randomly integrated in the genome using lentiviral transduction. This cell line also expresses gene conferring Blasticidin resistance. These cells lines can be used for various molecular and biochemical characterizations of dark ion channels in vitro.

Gene Name: TMEM63A

ORF Sequence:

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ATGATGGACTCCCCGTTCCCTGGAGCTGTGGCAGTCCAAGGCAGTGTCCATCAGGGAGCAGCTGGGACTCGG
CAACGACTCCTATTGCTACAACCTCGGCCAAAACAGCACCGTGCTCCAGGGGGTCACCTTTGGTGGCATCC
TGCTCATAGACGTCAGCTGCTTCCCTGTTCTTAATCTTGGTGTTTTTCTATTATAAGAAGAAGATTCTGGGACT
ATTGCCCTGGTGTGTCAGAAGCAGACAGCGAGTCCAGATTTTCAGAGATTGTCATCGACTTCCTCCTCAGGTCA
TGAAAATGAGCTGGGATGCTGTCCCTGGCTGACTGCCATCTTCCGTCTGCATGATGACCAGATCCTGGAAT
AGGACGCCATCCACTACCTGTCCCTCCAGAGGCACATCATCTTCCCTGTTGGTGGTGGTCAGCTTTTTGTCC
ATCCTGCCTGTCAACCTCTCAGGGGACTTGCTGGACAAAGACCCGTATAGTTTTGGGAGGACAACAATAGC
GACTGACAATGACCTCCTTTGGCTGCACACCATCTTTGCTGTCAATTTACCTCTTCCCTCACTGTGGGTTTCAT
ACACTCAGTCCATTAAGTACAAAGAGGAGAACCTGGTGAGGCGGACCCTGTTTCATCACAGGACTCCCCAG
AAGGAGACTGTGGAGAGCCACTTCCGGGACGCGTATCCACGTGTGAGGTGGTTGATGTGCAGCTGTGCTA
CAAACCTGATCTACCTGTGCAAGGAGAAAAAGAAGACTGAGAAGAGCCTGACCTATTACACAAACCTGCAC
GCCAGCGGACCCTCATCAACCCCAAGCCCTGTGGCCAGTTTTGCTGCTGTGAAGTGCTGGGCTGTGAGTGG
ATCTCTTACTACACACGGATGAAGGACAGGCTGCTGGAGAGGATCACAGAGGAAGAACGCCACGTCCAGC
GGGAATGGCCTTCGTCACCTTCCAGGAGAAAGTCCATGGCCACCTACATCCTGAAAGATTTCAATGCCTGCA
GCCTTCAGTGCAAAGGTGAGCCCCAGCCGTCCCTCCCATAGCAGGGAGCTCTATACCTCCAAGTGGACAGTC
GCTGACCCTGAGGACATCTGCTGGAAGAACCTCTCTATCCAGGGCCTCCGCTGGTGGCTACAGTGGCTGGC
CACCTCTTCCCTGGGGCTATTTTTTCCCTGACCACACCCTCCATCATCCTGTCCACCATGGACAAGTTTAATGT
CCATCCATGCGCTGAATAACCCGATCATCAGCCAGTTCTTCCCCACCCTCCTGCTCTGGTCCTTCTCGGCC
TCCATTGTCTACTACTCTACTGCTGGAGTCTCACTGGACCAAGTCGGGGGAAAACCAGATCATGATGAC
CATATTCTTGATCTTCATGGTGTGATCCTGCCCTCCCTGGGTCTCACCAGTCTAGATTTTTTTCTTCCGGTGC
ACAAAACCTTCCCTCGGAGGCCTCCATCAGGTTGGAGTGCCTTCCCTGCCTGACCAGGGTGCCTTCTTTGTGA
ATCGCCTCGGCCTTCATCGGCAATGGCATGGAGCTGCTGCGGCTGCCAGGTCTCATCCTCTATACCTTCCG
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GGCCAAGACGGCTGCTGACCGCAGGAATGTCAAGCAGAACCAGGCCTTCCAGTACGAGTTTGGAGCCATG
TGCTGTGTGTCTTCACTGTCATCGTGGCCTACAGCATCACTTGTCCCATCATCGCGCCATTTGGCCTCATCT
CTCAAGCACATGGTGGACCGGCACAACCTCTACTTTCGTCTACCTCCCAGCCAAGCTGGAGAAGGGGATCCA
TGTGAACCAGGCCTTGGCAGCCCCATCCTGTGCCTCTTCTGGCTCTACTTCTTTTCCTTCCTGCGCCTGGG
CCCCCGCCACTCTGTTACCTTCCTGGTGCTGCTGCTCACCATCCTGGTCTGCCTGGCTCACACCTGCTTTG
AAGCACCTCAGCCCTCTGAACTACAAAACAGAAGAGCCTGCAAGTGACAAAGGAAGTGAGGCAGAGGCC
ACCGTTCACACCCTACGTGCCTCGGATTCTGAACGGCTTGGCCTCGGAGAGGACAGCACTGTCTCCGCAGC
AGCAGACCTATGGTGCCATCCACAACATCAGCGGGACTATCCCTGGACAGTGCTTGGCGCAGAGCGCCAC
GCTGCTGCCCCCAGGAGGCCTGCCCAACTTTCTTGTACAAAGTGGTTGGTAAGCCTATCCCTAACCTCTC
CGATTCTACGTAG

Parent Cell Line: HEK293

Quantity: 1 vial of ~1 x 10⁶ cells; froze

Thawing Procedure:

The cells must be thawed in a 37 °C water bath under 2 min. Using aseptic technique, add the contents of the vial to 9 ml of complete growth medium, centrifuge for 5 min at 125 x g. Aspirate the medium, and resuspend in 10 mL of complete growth medium, and place into a culture vessel of your choice. Only add selection antibiotic to the medium after 24 hours in culture.