

Data Sheet for Over Expressed Cell Line for CLCNKA:

Cell ID: IDG-HEK293T-CLCNKA-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: CLCNKA

ORF Sequence:

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ATGGAGGAGTTGGTGGGGCTGCGTGAGGGCTTCTCAGGGGACCCTGTGACTCTGCAGGAGCTGTGGGGCC
CATCCGCCGAGCCATCCAAGGTGGCCTGGAGTGGCTAAAGCAGAAGGTGTTCCGCCTGGGAGAAGACTGG
TGACCCTCGGGGTGCTCATGGCCCTGGTCAGCTATGCCATGAACCTTTGCCATCGGGTGTGTGGTCCGAGCA
CTGTACAGGGAGATTGGGGACAGCCACCTGCTCCGGTATCTTTCCTGGACTGTGTACCCTGTGGCCCTCGT
CTCAGGCTTCTCCCAGAGCATCACGCCCTCCTCTGGAGGTTCTGGAATCCCGGAGCTGAAGACCATGTTGG
TCTTGGAGGACTACCTGGATATCAAGAACTTTGGGGCCAAGGTGGTGGGCCTCTCCTGCACCCTGGCCACC
CTGTTTCCTGGGCAAAGTGGGCCCTTTCGTGCACCTGTCTGTAATGATCGCTGCCTACCTGGGCCGTGTGCG
CATCGGGGAGCCTGAGAACAAAGAGCAAGCAAAAACGAAATGCTGGTGGCAGCGGCGGCAGTGGGCGTGGC
CAGCTCCCTTCAGCGGCGTCTGTTTCAGCATCGAGGTCATGTCTTCCCACTTCTCTGTCCGGGATTACTGGA
TTTGCGGCCACCTGCGGGGCCTTCATATTCCGGCTCCTGGCAGTCTTCAACAGCGAGCAGGAGACCATCAC
CAAGACCAGTTTCCGGGTGGACGTTCCCTTCGACCTGCCTGAGATCTTCTTTTTTGTGGCGCTGGGTGGCAT
TCCTGAGCTGTGCTTACCTCTTCTGTCAGCGAACCTTCCTCAGCTTCATCAAGACCAATCGGTTTCAGTCCA
GCTACTAGCAAGCCTGTGTAICTCCGCTCTGGCCACCTTGCTTCTCGCCTCCATCACCTACCCGCCTGGTGTG
CCTAGCTTCTCGGCTGTCCATGAAGCAGCATCTGGACTCGCTGTTTCGACAACCACTCCTGGGCGCTGATGA
CCAGCCCACCTGGCCCCGAGGAGCTCGACCCCCAGCACCTTTGGTGGGAATGGTACCACCCGCGGTTACCC
ACCCTTGCCTTCTTCTGGTTATGAAGTTCTGGATGCTGATTCTGGCCACCACCATCCCCATGCCTGCCGGG
GCCCATCTTTATCCTTGGAGCTGCCATCGGGCGCCTCTTGGGAGAGGCTCTTGGCGTCGCCTTCCCTGAGGC
CTGGAGGGGTTACCAATCCCATCATGCCCGGGGGGTATGCTCTGGCAGGGGCTGCAGCCTTCTCAGGGGCT
ACCATCTCCACGGCGCTGCTGGCCTTTGAGCTGACCGGCCAGATAGTGCATGCACTGCCCGTGTGATGGC
AGCCAACGCCATTGCACAGAGCTGCCAGCCCTCCTTCTATGATGGCACCATCATTGTCAAGAAGCTGCCAT
GGATTCTGGGCCGCAACATCGGCTCCCACCATGTGAGGGTGGAGCACTTCATGAACCACAGCATCACCACA
GACACGCCGCTGGAGGAGGTGGTCAAGGTTGTGACCTCCACAGACGTGACCGAGTATCCCCTGGTGGAGA
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CCAGATCCTGGTAGGCATCGTGCAGAGGGCCCAGCTGGTGCAGGCCCTCCAGGCTGAGCCTCCTTCCAGG
ACCAGTGTCTCCAGGACATCTTGGCCAGGGGCTGCCCCACGGAACCAGTGACCCTGACGCTATTCTCAGAC
CACCAGGCACAAAACCTCTTTAAGCTGTTGAACCTTCAGTCCCTCTTCGTGACATCGCGGGGCAGAGCTGT
GTCCTGGGTGGAGATGAAGAAAGCAATTTCCAACCTGACAAATCCGCCAGCTCCAAAGACAGCTTTCTTGT
TTGGTAAGCCTATCCCTAACCTCTCCTCGGTCTCGATTCTACGTAG

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.