

Phosphodiesterase 4C (PDE4C) Cell Line | PDE4C cell line

Phosphodiesterase 4C (PDE4C) ACTOne Stable Cell (CHO cell)

CATALOG #
AAA62078

PRODUCT SYNONYMS

Phosphodiesterase 4C (PDE4C); Phosphodiesterase 4C (PDE4C) ACTOne Stable Cell (CHO cell); Phosphodiesterase 4C (PDE4C) ACTOne Stable Cell Line; PDE4C cell line

PRODUCT SPECIFICATIONS

Sequence Length	712
Parental Cells	CHO-K1-CNG cells
Detection	FlexStation or Microplate reader
Functional Test	This cell line has been tested positive for PDE4C specific response Surviving Rate: More than 2.5 million/vial on the second day after thawing the receptor specific activity is stable for 10 weeks continuous passage.
Mycoplasma Contamination Test	This lot of cells has been tested and found to be free of mycoplasma contamination.
Content	Stable cells: 1 mL (1 x 10 ⁶ cells/mL in 70% DMEM, 20% FBS, 10% DMSO) Parental cells: 1 mL (1 x 10 ⁶ cells/mL in 70% DMEM, 20% FBS, 10% DMSO)
Growth Properties	Adherent
Cell Culture Medium	Growth medium (for PDE4C Cells): DMEM-F12 plus 10% FBS supplemented with 250 ug/ml G418, 1 ug/ml Puromycin and 5 ug/ml blasticidin Growth medium (for Control Cells): DMEM-F12 plus 10% FBS supplemented with 250 ug/ml G418, 1 ug/ml Puromycin and 300 ug/ml hygromycin Freezing medium: 10% DMSO, 90% complete cell culture medium.
High Baseline Fluorescent Signal	Inspect the cell density and morphology under a microscope. High cell density or unhealthy cells can result in high baseline signal. Do not remove serum-containing medium from cell plates before dye-loading. If a serum-free environment is required, use DPBS buffer containing 0.2 to 0.5% BSA to replace medium.
Response To Agonist Is Lower Than Expected	Check the overall health of cells. Cell density is too high or too low. Cell number titration may be necessary. Keep cells growing in medium with proper drug selection. Check settings of fluorescence readers.
High Well-To-Well Variations	Cells should be evenly distributed among wells. Before plating, microscopically examine the culture to be sure that they have been dissociated into single cells. Leave the cell plates at room temperature for 30 minutes prior to transferring the plates to a cell culture incubator. Check the liquid handling system for dispensing accuracy. Optimize the settings of liquid handling system so that cell monolayer is not disturbed by dye and compound addition. Check settings of fluorescence readers.
Response From Cells After The Addition Of Buffer Containing Only DMSO	Keep the final DMSO concentration below 1%.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.

Preparation and Storage

Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130 degree C, preferably in liquid nitrogen vapor, until ready for use.

Low Survival Rate of Cells After Thawing: Cell vials could have thawed accidentally. Store cell vials in liquid nitrogen immediately after receiving and keep frozen at all time.

Leaving the vial at 37 degree C for too long during thawing will lower the survival rate. Place the vial at 37 degree C until cells are just thawed.

Handle the cells gently. Don't tap the vial or pipette the cells too many times before plating the cells.

Replace the medium four hours after thawing or when the cells have settled to remove DMSO.

Slow Growth Rate of Cells: Do not split cells before they have completely recovered from thawing and reach at least 50% confluence.

Do not dilute cells excessively while splitting.

Spit cells before they reach 80 - 90% confluence.

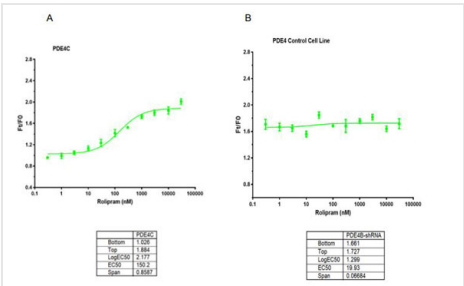
Use Trypsin-EDTA solution to dissociate cells

Cells may not be able to recover to an optimal stage if trypsin- free dissociation buffer is used.

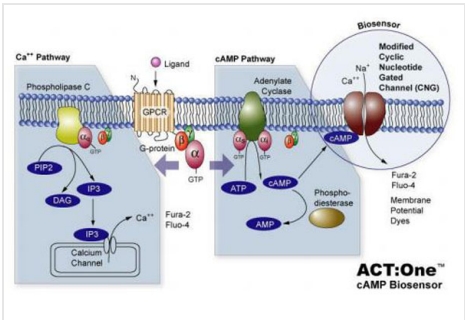
Dry Ice Shipment: Extra charge fee may add to your shipping cost as dry ice is required to ship this product.

Shipping Note: Product is available for shipment in the United States, Canada and European countries. Please inquire for shipment to other countries.

IMAGES



Application Data
Response of ACTOne PDE4C cells & parental cells to Rolipram



Application Data

ADDITIONAL INFORMATION

Related Product Information for PDE4C cell line

Description: This cell line is a CHO-K1-CNG cell line that expresses a recombinant human PDE4C. CHO-K1-CNG cells express a modified CNG (Cyclic Nucleotide Gated) channel that opens in response to elevated intracellular cAMP levels and consequently results in ion flux and cell membrane depolarization.

Human PDE4C ACTOne™ is a CHO-K1 CNG cell line that expresses recombinant human PDE4C. CHO-K1 CNG cells express a modified CNG (Cyclic Nucleotide Gated) channel that opens in response to elevated intracellular cAMP levels and consequently result in ion flux and cell membrane depolarization which can be easily measured with fluorescent Membrane Potential Dye. The assay allows both end-point and kinetic measurement of intracellular cAMP changes with a FLIPR, or a fluorescence microplate reader.

Introduction: The PDE4C receptor, also known as the Phosphodiesterase 4C receptor, is a member of the cyclic nucleotide phosphodiesterase (PDE) family, and PDE4 subfamily. This PDE hydrolyzes the second messenger, cAMP, which is a regulator and mediator of a number of cellular responses to extracellular signals. Thus, by regulating the cellular concentration of cAMP, this protein plays a key role in many important physiological processes.

Product Categories/Family for PDE4C cell line

Cell Lines For Membrane Receptor Research; Stable Cell Lines for ACTOne Assay on Phosphodiesterase (PDE) Inhibitors

NCBI AND UNIPROT INFORMATION

NCBI GI #	115529445
NCBI GeneID	5143

NCBI Accession #	NP_000914.2
NCBI GenBank Nucleotide #	NM_000923.5
UniProt Accession #	Q08493 ; Q9UN44 ; Q9UN45 ; Q9UN46 ; Q9UPJ6 ; B3KTC4
Molecular Weight	67,791 Da
NCBI Official Full Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4C isoform 1
NCBI Official Synonym Full Names	phosphodiesterase 4C
NCBI Official Symbol	PDE4C
NCBI Official Synonym Symbols	DPDE1; PDE21
NCBI Protein Information	cAMP-specific 3',5'-cyclic phosphodiesterase 4C
UniProt Protein Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4C
UniProt Gene Name	PDE4C
UniProt Synonym Gene Names	DPDE1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/cell-line/phosphodiesterase-4c-pde4c/62078>