Product Datasheet

DGCR8 knockout MEF cells NBP2-25171

Unit Size: 1.5 ml

Store in gas phase of liquid nitrogen.

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NBP2-25171

DGCR8 knockout MEF cells

Product Information	
Unit Size	1.5 ml
Concentration	Please see the protocols for proper use of this product. If no protocol is available, contact technical services for assistance.
Storage	Store in gas phase of liquid nitrogen.
Buffer	Cells are supplied in 1.5 ml quantities (about 1x10 ^ 6 cells/ml) in freezing media (80% MEF media, 10% FBS, 10% DMSO)
Product Description	
Gene ID	54487
Gene Symbol	DGCR8
Species	Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28102192)
Product Application Details	
Applications	In vitro assay

Please see Protocol for culturing conditions.

Application Notes

Images

Immunocytochemistry/Immunofluorescence: DGCR8 knockout MEF cells [NBP2-25171] - The DGCR8 knockout MEF cells were stained for alpha Tubulin at a 1:1000 dilution against Dylight 550 (Red) to show composition of cell structure. Nuclei were counterstained with DAPI (blue)

In vitro assay: DGCR8 knockout MEF cells [NBP2-25171] - Brightfield Image of DGCR8 MEF knockout cells

In vitro assay





Publications

M Cesana, MH Guo, D Cacchiarel, L Wahlster, J Barragan, S Doulatov, LT Vo, B Salvatori, C Trapnell, K Clement, P Cahan, KM Tsanov, PM Sousa, B Tazon-Vega, A Bolondi, FM Giorgi, A Califano, JL Rinn, A Meissner, JN Hirschhorn, GQ Daley A CLK3-HMGA2 Alternative Splicing Axis Impacts Human Hematopoietic Stem Cell Molecular Identity throughout Development Cell Stem Cell, 2018-04-05;22(4):575-588.e7. 2018-04-05 [PMID: 29625070]

Calses PC, Dhillon KK, Tucker N et al. DGCR8 Mediates Repair of UV-Induced DNA Damage Independently of RNA Processing. Cell Rep. 2017-04-04 [PMID: 28380355] (In vitro)

Gambardella G, Carissimo A, Chen A et al. The impact of microRNAs on transcriptional heterogeneity and gene coexpression across single embryonic stem cells Nat Commun 2017-01-19 [PMID: 28102192] (FLOW, Mouse)

Rasschaert P, Figueroa T, Dambrine G et al. Alternative splicing of a viral mirtron differentially affects the expression of other microRNAs from its cluster and of the host transcript. RNA Biol 2016-10-07 [PMID: 27715458] (WB)

Krawczynski K, Najmula J, Bauersachs S, Kaczmarek MM. MicroRNAome of porcine conceptuses and trophoblasts: expression profile of micrornas and their potential to regulate genes crucial for establishment of pregnancy. Biol Reprod. [PMID: 25472924]

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Procedures

Serum protocol for DGCR8 knockout MEF cells (NBP2-25171)

DGCR8 knockout MEF cells:

This protocol is written for growing cells in T25 tissue culture flasks, please make changes accordingly for flasks of different sizes

Required Medias:

MEF for embryonic fibroblasts: DMEM-Hi glucose 425 ml (Caisson Labs, DML10-500ML) FBS 75 ml (Denville Scientific, FB5001) 100 X non-essential amino acid 5 ml (Millipore EmbryoMax(R) TMS-001-C) 200 mM L-Glutamine 5 ml - (Sigma G7513)

Protocol:

- 1. Bring up MEF cells in a T25 flask:
- a. Put 10 mls of MEF media into 15ml conical vial.
- b. Warm vial of cells for 1-2 minutes in 37 degree water bath.
- c. Gently add thawed cells to MEF media in conical vial.
- d. Spin down for 5 minutes @ 1000 RPM to obtain cell pellet.
- e. Aspirate freeze media and resuspend pellet in 8 mls of fresh MEF media, transfer full amount to a T25 flask
- f. Rinse and feed the following day to remove aggregates

2. Transferring MEF cells to a T75 flask:

- a. Once cells are confluent (should only take 2 days), rinse 1X with 2 mls of sterile 1XPBS
- b. Add 2mls of Trypsin and incubate ate 37 degrees Celsius for 2 minutes
- c. Cut trypsin with 2mls of MEF media and transfer full amount into T75.

Freezing down DGCR8 MEF KO's:

- 1. Trypsinize flask of desired volume
- 2. Collect entire cell split and spin down to obtain cell pellet
- 3. Resuspend pellet in freeze media (MEF media + 10% fresh FBS + 10% DMSO, sterile filtered) at desired concentration
- 4. Transfer into cryogenic labeled vials
- 5. Put overnight in -80 degree freezer
- Transfer to liquid nitrogen for long term storage





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Products Related to NBP2-25171

NBP1-28751	GW182 Antibody
NBP1-71691-0.1mg	Dicer Antibody - BSA Free
MAB3314	Neurogenin-2 Antibody (7G4) [Unconjugated]
NBP2-32887-0.1mg	Ornithine Decarboxylase Antibody (ODC1/485)

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