Histone deacetylase 3 (HDAC 3) knockout mouse embryonic stem cell line

Catalogue number: 158386
Sub-type:
Images:

Contributor

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Institute: University of Leicester
Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Histone deacetylase 3 (HDAC 3) knockout mouse embryonic stem cell line

Alternate name:

Class:
Conjugate:
Description: Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Histone deacetylase 3 (HDAC3) acts as the catalytic core of the SMRT/NCoR co-repressor complex which regulates chromatin structure and gene expression. It was recently shown that HDAC3 binds, and is regulated in vitro, by the binding of inositol phosphates (IP).
Purpose:
Parental cell:
Organism:
Tissue:
Model:
Gender:
Isotype:
Reactivity:
Selectivity:
Host:
Immunogen:
Immunogen UNIPROT ID:
Sequence:

Growth properties:
Production details: E14 ES cells, expressing a CreER fusion protein from the ROSA26 locus, were used to generate HDAC3Lox/Lox; CreER cell lines by consecutive rounds of gene targeting.
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers:
Additional notes:

Target details

Target: Histone deacetylase 3

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:
Application notes: Loss of exon 3 via the conditional KO disrupts the ORF of HDAC3 such that a premature stop codon is introduced. Following this deletion of exon 3 a further 4??Â?5 days of culture are required before HDAC3 protein levels are reduced below 10% of those of control cells. "Loss of HDAC3 does not cause a significant reduction in total deacetylase activity with only minor changes in the acetylation levels of histones. However, the proliferative capacity of knockout cells is inhibited with a delay i...

Handling

Format: Frozen
Concentration:
Passage number:
Growth medium:
Temperature:
Atmosphere:
Volume:
Storage medium:
Storage buffer:
Storage conditions:
Shipping conditions: Dry ice

Related tools

Related tools:

References

References: Jamaladdin et al. 2014. Proc Natl Acad Sci U S A. 111(27):9840-5. PMID: 24958871.