

**Table S3. Genes selected for candidate-based epigenetic analysis in ES and TS cells, their protein functions, in vivo gene inactivation phenotypes and key references**

Symbol	Protein encoded	Lineage affiliation*	Gene inactivation phenotypes	References
<i>Atoh1</i>	High mobility group (HMG) box transcription factor	Ectoderm	Viable; defects in ventral telencephalic development (epilepsy).	Malas et al., 2003
<i>Cdx2</i>	Homeobox transcription factor	Extra-embryonic	Defective blastocoel cavity formation; no implantation.	Strumpf et al., 2005
<i>Fgfr2</i>	Tyrosine kinase receptor	Diverse	Lethality at 10.5 d.p.c.; defect in chorioallantoic fusion and placenta trophoblast cell proliferation.	Xu et al., 1998
<i>Gata4</i>	Homeobox transcription factor	Mesoderm	Developmental arrest at 9 d.p.c.; abnormal germ layer morphogenesis during gastrulation.	Narita et al., 1997
<i>Hand1</i>	Basic helix-loop-helix transcription factor	Extra-embryonic	Lethality at 7.5 d.p.c.; defect in trophoblast giant cell differentiation.	Riley et al., 1998
<i>Hoxa7</i>	Paired-like homeobox transcription factor	Mesoderm	Viable; no phenotype.	Chen et al., 1998
<i>Kdr</i>	Tyrosine kinase receptor	Mesoderm	Lethality at 8.5-9.5 d.p.c.; defect in the development of haematopoietic and endothelial cells.	Shalaby et al., 1995
<i>Pax3</i>	Paired domain transcription factor	Mesoderm	Mid-gestational lethality; defects in myogenesis; neural tube closure and neural crest-derived lineages.	Mansouri et al., 2001
<i>Mixl1</i>	Zinc-finger transcription factor	Endoderm	Lethality at 9.5 d.p.c.; profound defects in ventral morphogenesis.	Hart et al., 2002
<i>Sox1</i>	Basic helix-loop-helix transcription factor	Ectoderm	Born alive; but die a few minutes after birth; defective cerebellum.	Ben-Arie et al., 1997
<i>Sox7</i>	High mobility group (HMG) box transcription factor	Endoderm	No information available.	N/A

Gene symbols are stated as reported within Mouse Genome Informatics (Bult et al., 2008).

\*Lineage affiliation reflects tissues in which genes are predominantly expressed in accordance with UniGene cDNA libraries (Wheeler et al., 2003).

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