

Supplementary Information

Title: Embryonic POU5F1 is Required for Expanded Bovine Blastocyst Formation

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Supplementary Table S1. Phenotype and genotype evaluation of IVF-produced embryos

Experimental group	<u>Immunofluorescence</u>		<u>Sequence</u>	Total N
	POU5F1 +	POU5F1 -	Genotype	
Un-injected Ctrl	8	0	WT	8
POU5F1 E1 Ctrl	3	0	WT	3
POU5F1 TKO	--	3	Mutated	3
POU5F1 TKO	2	--	WT	2

Day 7.5 embryos produced from *in vitro* fertilization with frozen-thawed bull sperm were fixed with 4% paraformaldehyde and subjected to immunohistochemistry to detect the presence or absence of POU5F1. A subset of embryos from control and targeted-knockout groups was sequenced to confirm that the genotype was consistent with POU5F1 expression.