

Table 2. Transcription factors (TFs) most associated with litter size and number of teats. The table shows the TF, the group which they were identified, the related trait and their association with each trait by biological process and literature review.

TFs	Group	Biological process	Trait	Literature Review*
AR	10	Mammary gland duct morphogenesis	Number of teats	Development of the mammary gland (YEH <i>et al.</i> , 2003).
ELF5	2,4,10 and 11	Differentiation of mammary gland epithelial cells/tissue development	Number of teats/Litter size	Development of the mammary gland (ZHOU <i>et al.</i> , 2005); Development of the mammary gland (CHOI <i>et al.</i> , 2009).
FOXA1	12	Gland morphogenesis Differentiation of glandular epithelial cells Gland development	Number of teats	Expression in luminal cells in mammary glands (YAMAGUCHI <i>et al.</i> , 2008).
FOXA2	4	Fetal develop	Litter size	Endometrial development and fertility (JEONG <i>et al.</i> , 2010)
FOXC1	6	Formation of paraxial mesoderm	Number of teats	Mammary duct morphogenesis (SIZEMORE <i>et al.</i> , 2013).
FOXD3	1, 2,4, 6 and 8	Embryonic development in utero/embryonic development	Litter size / Number of teats	Promotes embryonic stem cell development in mice (ZHU <i>et al.</i> , 2014); Promotes embryonic stem cell development in mice (KUMAR; CHAUHAN, 2021).
GATA2	1,3, 7, 9 and 14	Regulation of phagocytosis Development of the mammary gland Embryonic development in the uterus	Litter size / Number of teats	Development and function of the mammary gland (MAGKLARA <i>et al.</i> 2009). Embryonic development in pigs (DYCK <i>et al.</i> , 2014).

HNFI1A	6 and 10	Formation of paraxial mesoderm	Number of teats	Luminal cells in mammary glands (YANG <i>et al.</i> , 2021).
NKX3-1	1, 10 and 11	Development of the reproductive structure	Litter size / Number of teats	Fetal develop (TANAKA <i>et al.</i> , 1999).
NOBOX	4	Development of the reproductive structure	Litter size	Follicular development (HUNTRISS <i>et al.</i> , 2006).
PLAG1	3	Gland development	Number of teats	Pleiotropic effects for milk traits in lactating cows (FINK <i>et al.</i> , 2017).
PBX1	8 e 11	Proximal/distal pattern formation, reproduction	Number of teats/ Litter size	Mammary gland morphogenesis (SICOURI <i>et al.</i> , 2018); Axial skeletal development (CAPELLINI <i>et al.</i> , 2008).
RELA	3, 7 and 13	Regulation of cartilage development	Number of teats	Mammary gland growth (LU <i>et al.</i> , 2008).
SRF	2 e 10	Spreading of angiogenesis	Number of teats	Development of breast myoepithelial cells (LI <i>et al.</i> , 2006).
STAT3	8 e 11	Nervous system development/reproduction	Number of teats/ Litter size	Apoptosis of epithelial cells of the mammary gland (CHAPMAN <i>et al.</i> , 1999). Human ovarian epithelial cells (SYED <i>et al.</i> , 2002).
SOX2	4	Fetal develop	Litter size	Embryo formation (KERAMARI <i>et al.</i> , 2010).
SOX9	4, 10 and 11	Development of reproductive structure/regulation of skeletal muscle tissue development	Litter size / Number of teats	Cartilage formation (BI <i>et al.</i> , 1999). Vertebral composition and spinal cord expression (WUNDERLE <i>et al.</i> , 1998).

TFAP2A	9 e 13	Embryonic epithelium morphogenesis/upregulation of bone mineralization	Litter size / Number of teats	Development of the mammary gland (KISER <i>et al.</i> , 2019). Fetal human breast development (FRIEDRICHS <i>et al.</i> , 2007).
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