

**Table S7** Match probability values obtained in recent studies of individual genetic traceability in cattle using microsatellites (short tandem repeats, STR) or single nucleotide polymorphism (up date form Dalvit *et al.*, 2007 and Baldo *et al.*, 2010)

Type and number of markers	Match probability	Breeds	References
SNP – 116	$10^{-44}$	Angus	Present work
SNP - 50	$10^{-22}$	Angus	Present work
SNP - 32	$10^{-14}$	Angus	Present work
SNP - 25	$10^{-11}$	Angus	Present work
STR - 18	$10^{-14}$	Angus	Present work
STR - 12	$10^{-12}$	Angus	Present work
SNP - 43	$10^{-11}$ to $10^{-13}$	Limousin, Belgian Blue, Simmental, Charolais, Aberdeen Angus, Holstein	Allen et al. (2010)
STR - 11	$10^{-9}$	Limousin, Belgian Blue, Simmental, Charolais, Aberdeen Angus, Holstein	Allen et al. (2010)
STR - 11	$10^{-8}$ to $10^{-11}$	Angus	Baldo et al. (2010)
SNP - 87	$10^{-34}$	Japanese black	Hara et al. (2010b)
SNP - 29	$10^{-12}$	Japanese black	Hara et al. (2010a)
SNP - 50	$10^{-15}$	Several breeds	HapMap Consortium (2009)
SNP - 25	$10^{-8}$ to $10^{-10}$	Holstein, Simmental, Limousin, Angus, Charolais, Tux Cattle	Karniol et al. (2009)
STR - 12	$> 1.4 \times 10^{-8}$	Piemontese, Chianina, Marchigiana, Romagnola, Holstein Friesian, Brown Swiss	Dalvit et al. (2008)
SNP – 28		Angus, Hereford	Van Eenennaam et al. (2007)
STR - 23		Angus, Hereford	Van Eenennaam et al. (2007)
STR – 12	$1.9 \times 10^{-11}$	Piemontese, Chianina, Marchigiana, Romagnola	Dalvit et al. (2006)
SNP - 25	$5 \times 10^{-6}$	Simulated data	Weller et al. (2006)
STR– 10	$2.4 \times 10^{-8}$	Galloway	Herraéz et al. (2005)
STR – 17	$1.4 \times 10^{-13}$	Galloway	Herraéz et al. (2005)
SNP – 43	$5.3 \times 10^{-11}$	Galloway	Herraéz et al. (2005)
SNP – 20	$4.3 \times 10^{-8}$	Holstein Friesian, and others	Heaton et al. (2005)
SNP - 37	$10^{-13}$	Holstein, German Fleckvieh, German Braunvieh	Werner et al. (2004)
SNP – 32	$2.0 \times 10^{-13}$	American Angus	Heaton et al. (2002)
SNP – 32	$1.9 \times 10^{-10}$	multi-breed composite populations	Heaton et al. (2002)
STR – 10	$>10^{-7}$	Pirenaica	Arana et al. (2002)
STR – 13	$>10^{-15}$	Piemontese, Chinina, Holstein Friesian, Italian Simmental	Orrù et al. (2006)
STR – 11	$5 \times 10^{-12}$	Charolaise	San Cristobal-Gaudy et al. (2000)
STR – 10	$1 \times 10^{-10}$	Belgium beef cattle	Peelman et al. (1998)