Table S1. Fluorophores used in this study.				
Fluorophore	Company	Code	Dilution	Working Concentration
Streptavidin Alexa Fluor® 647 conjugate	Invitrogen	S21374	1:333	3 μg/mL
Streptavidin Alexa Fluor® 546 conjugate	Invitrogen	S11225	1:333	3 μg/mL
Streptavidin cy3 conjugate	Jackson Immunoresearch	016-160-084	1:500	1 μg/mL

Table S2. Proportion of ID4^{+} cells that co-stain for other markers.		
Marker	% (mean±S.D.)	Range (%)
PLZF	96.0±1.8	94.1-97.6
UTF1	37.1±15.1	24.8-54.0
KIT	13.3±4.1	8.6-16.3
Ki67	1.6±1.1	0.6-2.8

Figure S1

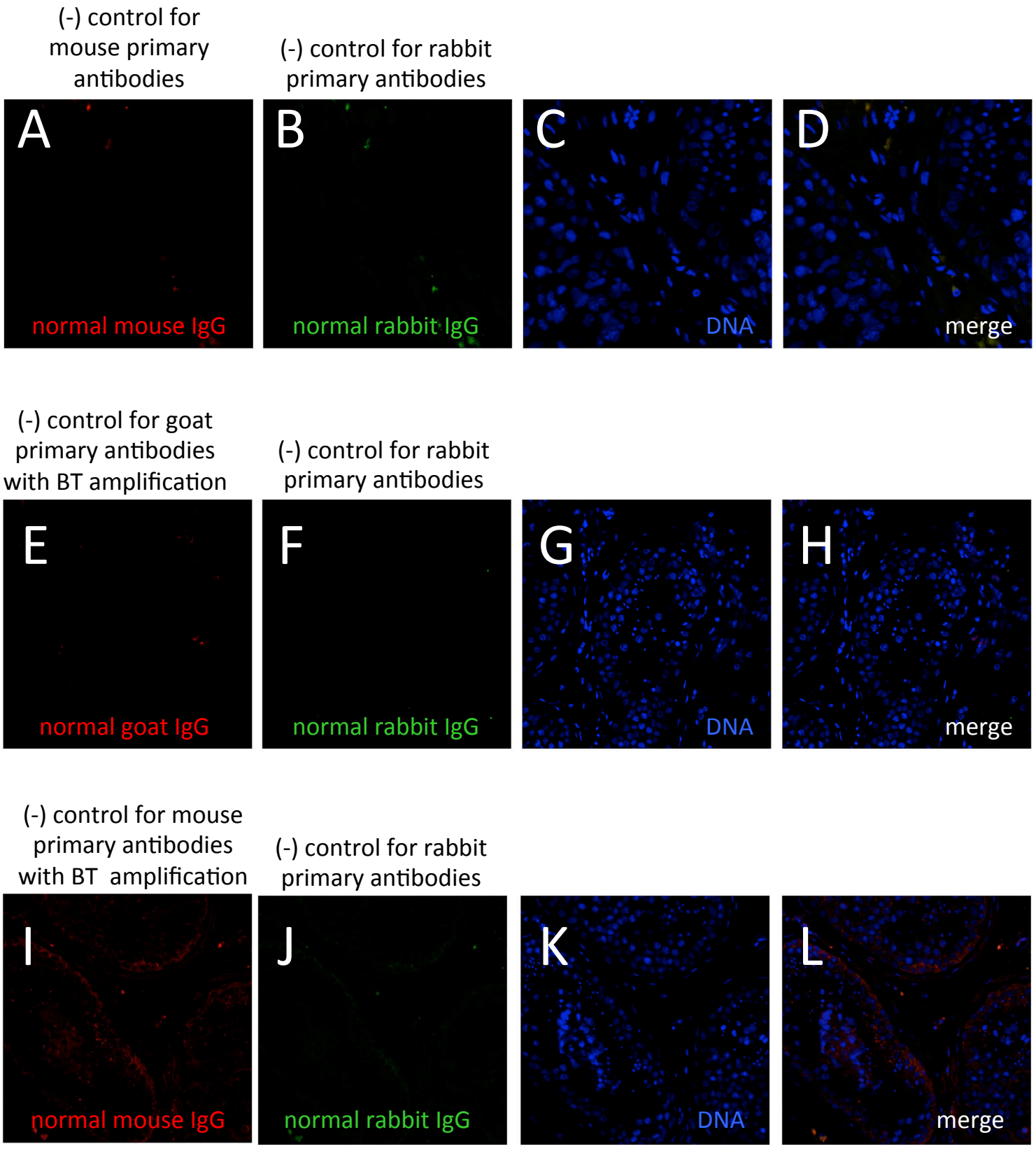

Figure S1. Negative controls for standard and highly amplified IF assays.

Figure S2

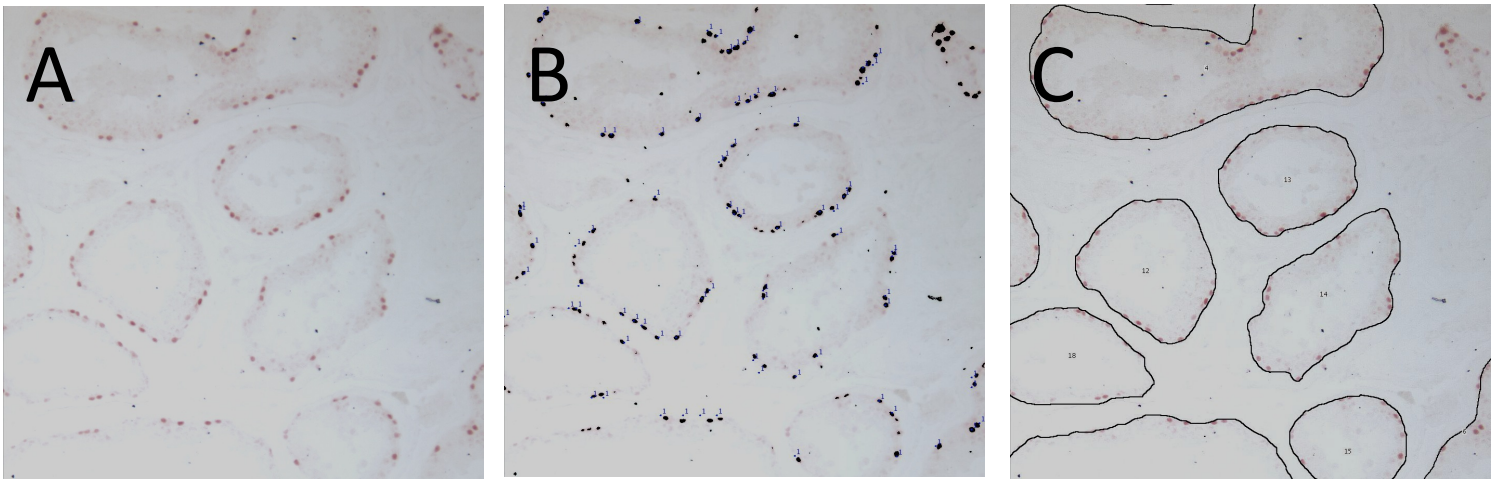

Figure S2. Example of image-based cell quantitation procedure for ID4 IHC staining.

Figure S3

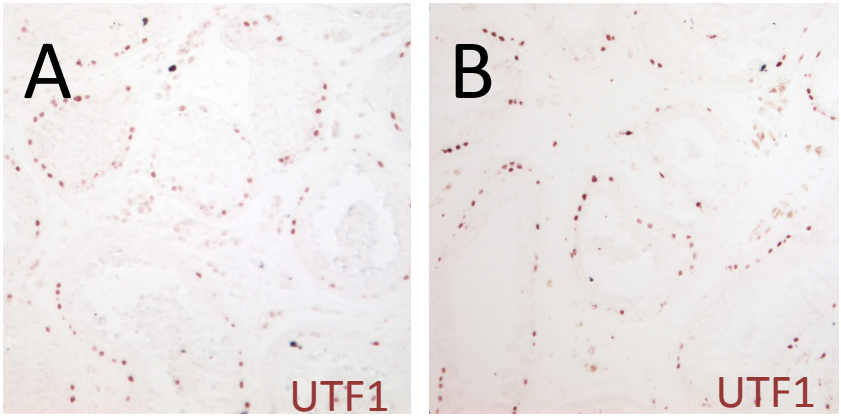

Figure S3. Representative UTF1 IHC in adult testis for young and older donors.

Figure S4

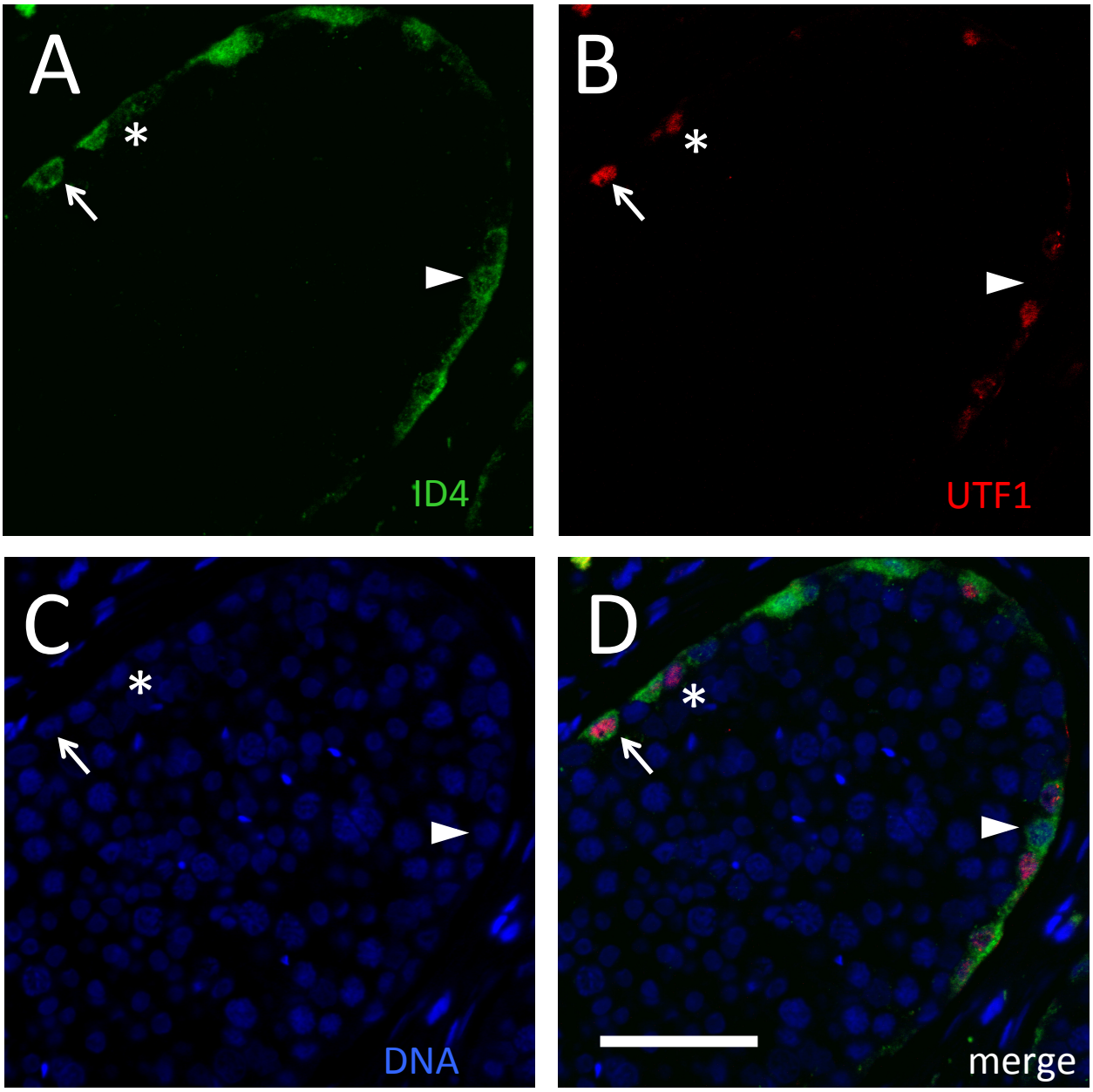

Figure S4. Co-localization of anti-ID4 and anti-UTF1 signals in the human seminiferous epithelium (additional field).

Figure S5

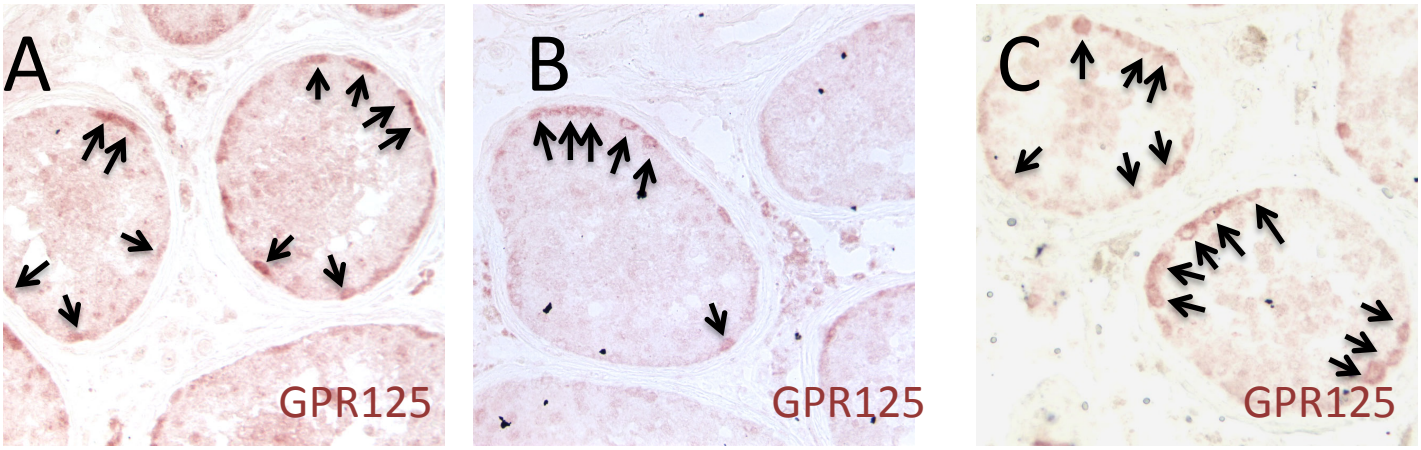

Figure S5. Representative GPR125 IHC in adult testis for young and older donors.

Figure S6

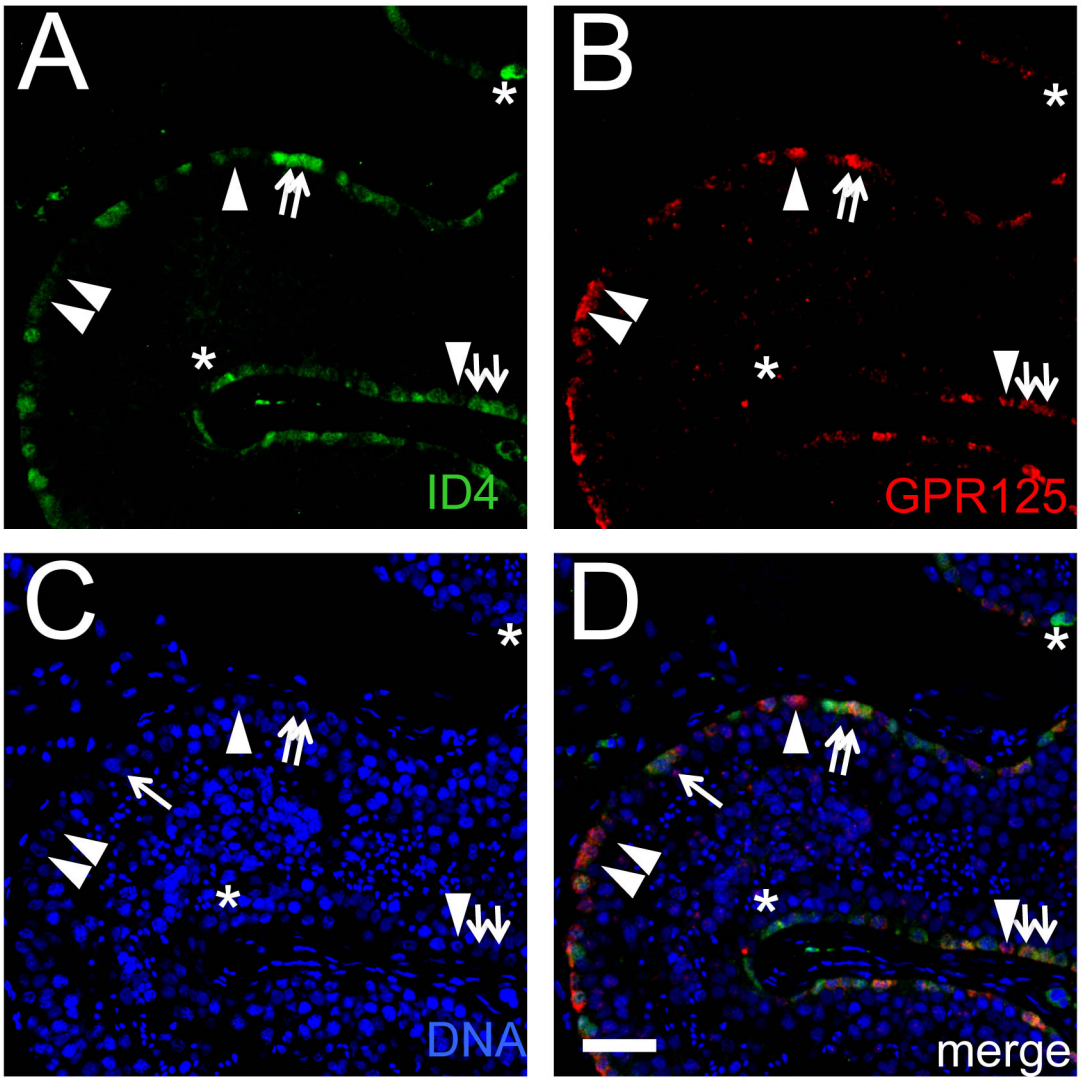

Figure S6. Partial overlap of anti-ID4 and anti-GPR125 signal in the human seminiferous epithelium.

Figure S7

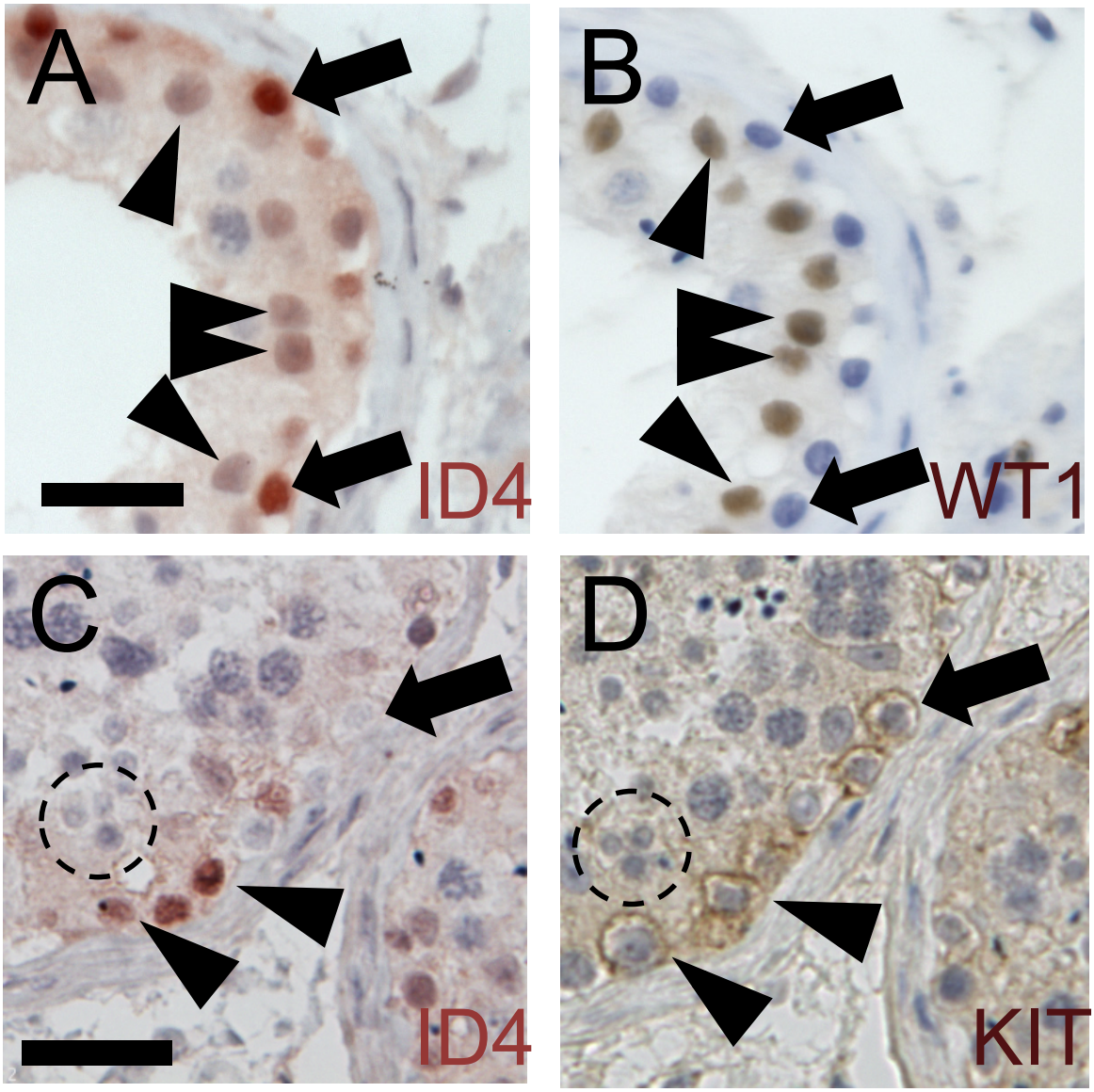

Figure S7. Co-localization of anti-ID4 and either anti-KIT or anti-WT1 immunoreactive cells in the human seminiferous epithelium