

Technical Data Sheet:

hTERT Immortalized Neonatal Melanocytes

ATCC® Number	CRL-4064™
Organism	<i>Homo sapiens</i>
Tissue/Disease Source/Ethnicity	Normal neonatal skin, Asian
Product Description	hTERT-immortalized Neonatal Melanocytes (ATCC® CRL-4064™) were created by selecting a single cell clone from primary melanocytes that had been retrovirally transduced with the gene encoding the human telomerase catalytic subunit (hTERT). Essential melanocyte character post-transduction was confirmed by immunofluorescence staining for the melanocyte marker TRP1. The CRL-4064 cell line also retains typical melanocyte morphology as observed through phase contrast microscopy.
Application	Melanoma, response to UV radiation, psoriasis and other skin diseases, skin trauma (e.g., wound repair, scars, burns), cosmetic research (e.g., skin lightening compounds, skin protecting compounds)

Melanocyte Marker Expression

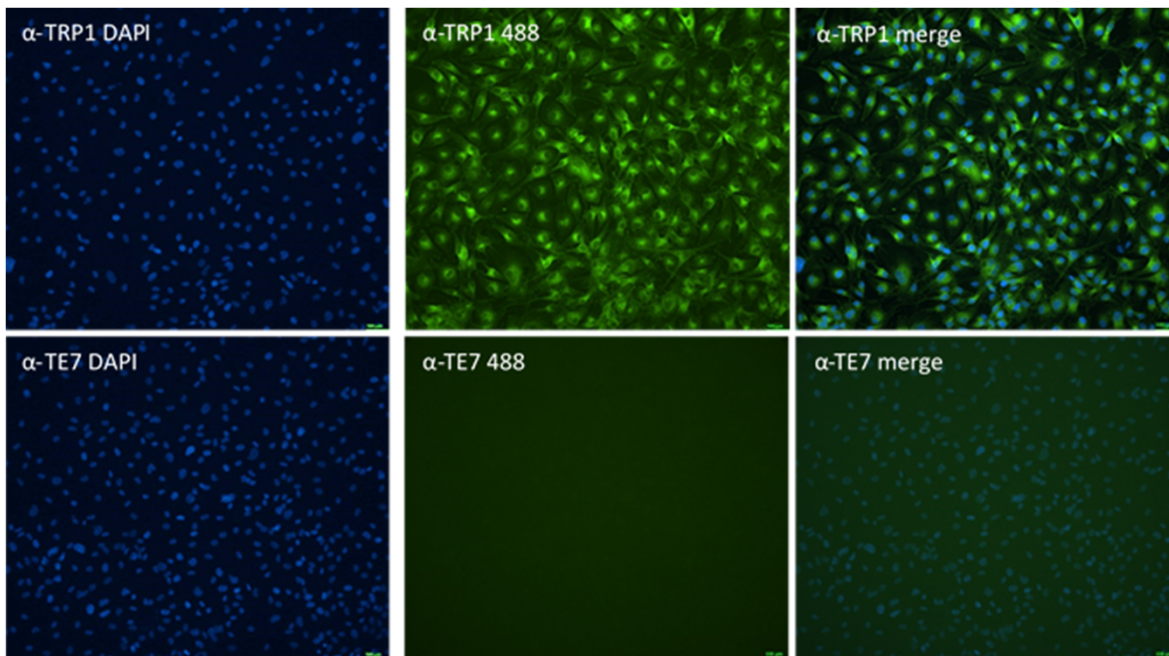


Figure 1. Immortalized melanocytes uniformly express the melanocyte specific marker TRP1 and do not express the fibroblast specific marker TE7. hTERT melanocytes were fixed with 4% Paraformaldehyde then blocked/permeabilized with a solution of 0.2% Triton x-100, 0.1% Tween-20 10% Normal Goat serum in PBS. Cells were then stained with 1:400 mouse anti human primary antibody in a solution of 0.05% Tween-20 2% NGS in PBS. Cells were washed and stained with goat anti-mouse IgG conjugated to Alexa fluor 488 secondary antibody at 1:400 in the same solution. Cells were counterstained with 1:5000 Hoechst nuclear stain in PBS and imaged using a Nikon Ti-eclipse inverted microscope and 20x objective. Scale bar represents 100 microns.

Cell Morphology

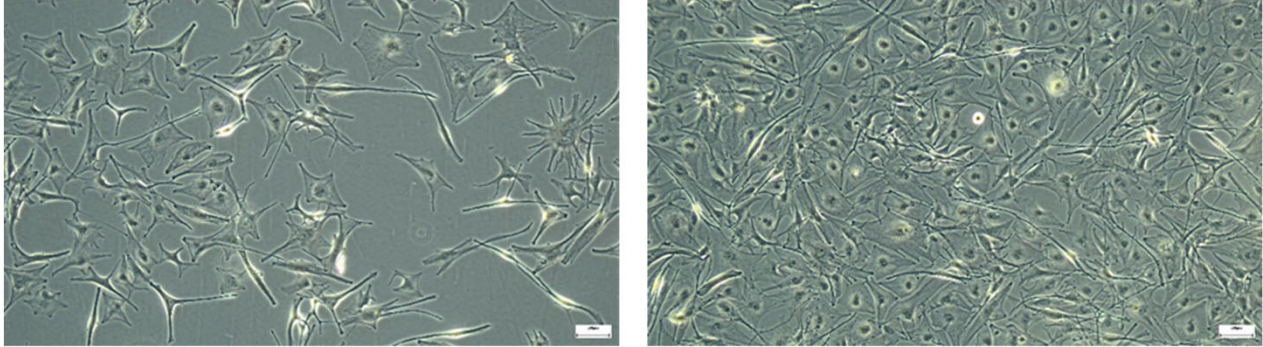


Figure 2. hTERT-immortalized Neonatal Melanocytes resemble typical melanocyte morphology. High and low confluence images of plated adherent melanocytes were taken using an inverted microscope at 10x. Scale bar represents 82 microns.