BACKGROUND
Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed in pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. The α-helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins are useful markers of tissue differentiation, and in addition they aid in the characterization of malignant tumors. In Bowen’s disease, the characteristic malignancy of the epidermis exhibits distinct expression patterns of Cytokeratin 14. The gene encoding human Cytokeratin 14 maps to chromosome 17q21.2. Mutations in this gene lead to epidermolysis bullosa simplex, an inherited skin disorder characterized by skin blistering due to basal keratinocyte fragility.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: KRT14 (human) mapping to 17q21.2; Krt14 (mouse) mapping to 11 D.

SOURCE
Cytokeratin 14 (DE-SPK14) is a mouse monoclonal antibody raised against amino acids 459-472 of Cytokeratin 14 of human origin.