

The mechanism of collagen VII secretion; Understanding the etiology of dystrophic epidermolysis bullosa (DEB)

Kota Saito

Department of Physiological Chemistry, Graduate School of Pharmaceutical Sciences, University of Tokyo

Collagen is synthesized in the endoplasmic reticulum (ER) and secreted to the cell surface via secretory pathway. Collagen is too big to fit into conventional secretory vesicles and the mechanism of collagen exit from the ER has not been elucidated. We have recently identified cTAGE5, a protein localized at the ER exit site, and revealed that it is specifically required for collagen export from the ER. Furthermore, cTAGE5 directly interacts with TANGO1, therefore, we suggest that cTAGE5/TANGO1 complex form a collagen receptor complex within the ER.