**BACKGROUND**

Terminally differentiating mammalian epidermal cells acquire an insoluble, 10 to 20 nm thick protein deposit on the intracellular surface of the plasma membrane known as the cross-linked cell envelope (CE). The CE is a component of the epidermis that is generated through formation of disulfide bonds and γ-glutamyl-lysine isodipeptide bonds, which are formed by the action of transglutaminases (TGases). TGases are intercellularly localizing, Ca²⁺-dependent enzymes that catalyze the formation of isopeptide bonds by transferring an amine on to glutaminyl residues, thereby cross-linking glutamine residues and lysine residues in substrate proteins. TGases influence numerous biological processes, including blood coagulation, epidermal differentiation, seminal fluid coagulation, fertilization, cell differentiation and apoptosis. Human keratinocyte transglutaminase (TGase1) is a membrane associated, 817 amino acid protein. Human tissue transglutaminase (TGase2) is an endothelial cell specific, 687 amino acid protein.

**CHROMOSOMAL LOCATION**

Genetic locus: TG2M2 (human) mapping to 20q12; Tgm2 (mouse) mapping to 2H1.

**SOURCE**

TGase2 (H-237) is a rabbit polyclonal antibody raised against amino acids 451-687 of TGase2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

TGase2 (H-237) is recommended for detection of TGase2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TGase2 (H-237) is also recommended for detection of TGase2 in additional species, including equine.

Suitable for use as control antibody for TGase2 siRNA (h); sc-37514, TGase2 siRNA (m); sc-37515, TGase2 shRNA Plasmid (h); sc-37514-SH, TGase2 shRNA Plasmid (m); sc-37515-SH, TGase2 shRNA (h) Lentiviral Particles; sc-37514-V and TGase2 shRNA (m) Lentiviral Particles; sc-37515-V.

Molecular Weight (predicted) of TGase2: 77 kDa.

Molecular Weight (observed) of TGase2: 79/90 kDa.

Positive Controls: HEL 92.1.7 cell lysate; sc-2270, HUV-EC-C whole cell lysate or ECV304 cell lysate: sc-2269.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.