

## Product Information

**Anti-Collagen, Type VII antibody, Mouse monoclonal**  
clone LH7.2, purified from hybridoma cell culture

Product Number **SAB4200686**

### Product Description

Anti-Collagen Type VII (mouse IgG1 isotype) is derived from the hybridoma LH7.2 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with insoluble fractions prepared from neonatal foreskin epidermal cells.<sup>1</sup> The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Collagen Type VII specifically recognizes an epitope located on collagenase digested Type VII collagen (150 kDa), i.e., the non-helical C-terminal region of the Type VII collagen dimer and is also reactive against intact tissue Type VII collagen (250 kDa), nevertheless, it does not recognize pepsin-digested collagen Type VII.<sup>1</sup> Monoclonal Anti-Collagen Type VII does not show cross-reactivity with Types I, II, III, IV, V collagens or with laminin and fibronectin.<sup>1</sup> It recognizes Collagen Type VII from human, porcine guinea pig, bovine, sheep and goat origin.<sup>1-6</sup> The antibody may be used in various immunochemical techniques including ELISA, Immunoblotting (150 kDa for collagenase digested and 250 kDa for intact Collagen Type VII),<sup>2</sup> Immunohistochemistry,<sup>3-6</sup> and Immunofluorescence.<sup>7</sup> Immunohistochemistry best result can be obtained using frozen tissue sections treated with enzymes. Staining may be reduced by formaldehyde and glutaraldehyde fixation, antigenicity is retained in methacarn-fixed, paraffin-embedded and briefly enzyme-digested sections. Staining is lost by pepsin digestion or by methanol fixation.

Collagen Type VII (known also as Col7) which belongs to the collagen superfamily, is a major extracellular matrix component of the anchoring fibrils in *lamina densa* and is essential for the skin integrity.<sup>8</sup> Mutations in Collagen Type VII cause dystrophic forms of epidermolysis bullosa (including Recessive Dystrophic Epidermolysis Bullosa (RDEB), which manifest as skin fragility and malformed enamel.<sup>9-10</sup> Anti-Collagen Type VII antibody was found useful for differentiating invasive melanoma from non-invasive melanoma through clear visualization of appearance and integrity of epidermal basement membrane.<sup>3</sup>

### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~ 1.0 mg/mL

### Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

### Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

### Product Profile

Immunohistochemistry: a working concentration of 1.5-3 µg/ml is recommended using frozen human tonsil sections.

**Note**: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

### References

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