



Cytokeratin 2E (Ks2.342.7.1): sc-58731

BACKGROUND

Cytokeratin 2 is a member of the Cytokeratin (CK) group of intermediate filament proteins (IFPs). It is expressed in large quantities in human epidermis, though strictly suprabasally, usually starting in the third or fourth cell layer of epidermis. Cytokeratin 2 may be a late cytoskeletal IFP addition that is produced during maturation of epidermal keratinocytes and most likely contributes to terminal cornification. Research indicates that the Cytokeratin 2 found in the masticatory epithelia of hard palate and gingiva (CK 2P) differs from that found in epidermis (CK 2E) by its amino acid sequence, and it is encoded by a different gene. The two show limited sequence homology with 71% identical amino acid positions in the rod domain. Both CK 2E and CK 2P are expressed only in suprabasal cell layers of the specific epithelia where they can accumulate to represent major cytoskeletal proteins. Mutations in CK 2E lead to ichthyosis bullosa of Siemens (IBS), an autosomal dominant disorder of keratinization characterized by epidermolytic hyperkeratosis without erythroderma.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KRT2 (human) mapping to 12q13.13; Krt2 (mouse) mapping to 15 F2.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

Cytokeratin 2E (Ks2.342.7.1) is a mouse monoclonal antibody raised against amino acids 2-23 of Cytokeratin 2E of human origin.

PRODUCT

Each vial contains 500 μ l culture supernatant containing IgG₁ with 0.09% sodium azide and 1% stabilizer protein.

APPLICATIONS

Cytokeratin 2E (Ks2.342.7.1) is recommended for detection of Cytokeratin 2E of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200); may cross-react with epidermal cells in uppermost suprabasal layers and individual cells within epidermis of tongue and mamille; non cross-reactive with palate Cytokeratin 2P.

Molecular Weight of Cytokeratin 2E: 68 kDa.

SELECT PRODUCT CITATIONS

- Fang, S., et al. 2008. Comparative proteomics analysis of Cytokeratin and involucrin expression in lesions from patients with systemic lupus erythematosus. *Acta Biochim. Biophys. Sin.* 40: 989-995.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

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