

Recombinant Human Keratin 19

Cat. No. KRT19-616H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human Cytokeratin 19 produced in *E. Coli* is a single, non-glycosylated polypeptide chain having a molecular mass of 44,098 Dalton. The CTK-19 is purified by proprietary chromatographic techniques.

Species Human

Source E.coli

Description CTK-19 is a member of the keratin family. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. The type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains. Unlike its related family members, this smallest known acidic cytokeratin is not paired with a basic cytokeratin in epithelial cells. It is specifically expressed in the periderm, the transiently superficial layer that envelopes the developing epidermis. The type I cytokeratins are clustered in a region of chromosome 17q12-q21.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation The protein (1mg/ml) was lyophilized after from a sterile solution containing 30mM Tris-HCL pH-8, 9.5M urea, 2mM EDTA and 10mM methylammonium chloride.

Solubility It is recommended to reconstitute the lyophilized CTK-19 in sterile 18MΩ-cm H₂O not less than 100g/ml, which can then be further diluted to other aqueous solutions.

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Stability	Lyophilized CTK-19 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CTK-19 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Reconstitution To Filaments	Performed by mixing equimolar amounts of cytokeratins of type I and type II at concentrations of approx. 0.5 mg/ml, both dissolved in 9.5 M urea buffer (see above). Protofilaments and filament complexes are obtained by dialyzing the resulting polypeptide solution stepwise to a concentration of 4 M urea and then to low salt condition (50 mM NaCl, 2 mM dithiothreitol, 10 mM Tris-HCl, pH 7.4). For immunization purposes, the solution can be further dialyzed against PBS.

GENE INFORMATION

Gene Name	KRT19 keratin 19 [Homo sapiens]
Synonyms	keratin 19; K19; CK19; K1CS; MGC15366; keratin, type I cytoskeletal 19; keratin, type I, 40-kd; cytokeratin 19; 40-kDa keratin intermediate filament; CK-19; Cytokeratin-19; Keratin-19; K1C19_HUMAN; KRT19
Gene ID	3880
mRNA Refseq	NM_002276
Protein Refseq	NP_002267
MIM	148020

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UniProt ID	P08727
Chromosome Location	17q21.2
Pathway	Cell Communication
Function	protein binding; structural constituent of cytoskeleton; structural constituent of muscle

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