# Recombinant Human Cytokein19 protein (His tag)

## Catalog No. PDEH100412

*Note:* Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	Keratin;type I cytoskeletal 19;KRT19;Keratin-19 (K19)
Species	Human
Expression Host	E.coli
Sequence	Glu 80-Leu 400
Accession	P08727
Calculated Molecular Weight	35.2 kDa
Observed molecular weight	38 kDa
Tag	N-His
Bioactivity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis

### Data



>95 % as determined by reducing SDS-PAGE.

# Background

Cytokeratin 19 (Keratin, type I cytoskeletal 19; also KRT-19, CK19 and Keratin-19) is a 40-45 kDa, acidic Class I keratin

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member of the intermediate filament family of proteins. Individual keratins are always expressed in tandem with a second keratin, and these are found in all epithelial cells. The class I KRT-19 heterodimerizes/polymerizes with 50-52 kDa class II KRT-8 (plus KRT-5 and -7) to form 8-10 nm filaments in epidermal stem cells, secretory gland (sweat; mammary; bile duct) simple epithelium, and neuroendocrine epidermal Merkel cells. It may represent a viable marker for skin stem cells. In skin, Cytokeratin 19 forms filaments in the fetal epithelium, and then progressively decreases with age, being virtually absent by age 17. Human Cytokeratin 19 is 400 amino acids (aa) in length. It contains an N-terminal "head" region (aa 1-79) and a subsequent "rod" region (aa 80-387), but is absent a typical C-terminal tail region. Cytokeratin 19 possesses at least 5 utilized phosphorylation sites plus one acetylated Lys residue. Based on other keratins, and the presence of an Asp at position 238, there may be caspase cleavage-generated isoforms. Full length human Cytokeratin 19 (aa 2-400) shares 82% aa sequence identity with mouse Cytokeratin 19.