PRODUCT INFORMATION

Expression system E.coli

Domain 1-473aa

UniProt No. P08779

NCBI Accession No. NP_005548

Alternative Names

Keratin type I cytoskeletal 16, Keratin, type I cytoskeletal 16, CK16, FNEPPK, K16, K1CP, KRT16A, NEPPK

PRODUCT SPECIFICATION

Molecular Weight 53.7 kDa (496aa)

Concentration 1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

Purity

> 90% by SDS-PAGE

Tag His-Tag

Application SDS-PAGE, Denatured

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

KRT16 is a member of the keratin gene family. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. Most of the type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains and are clustered in a region of chromosome 17q12-q21. This keratin has been coexpressed with keratin 14 in a number of epithelial tissues, including esophagus, tongue, and hair follicles. Mutations in this gene are associated with type 1 pachyonychia congenita, non-epidermolytic palmoplantar keratoderma and unilateral palmoplantar



verrucous nevus. Recombinant human KRT16 protein, fused to His-tag at N-terminus, was expressed in E. coli.

Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MGSMTTCSRQ FTSSSSMKGS CGIGGGIGGG SSRISSVLAG GSCRAPSTYG GGLSVSSRFS SGGACGLGGG YGGGFSSSSS FGSGFGGGYG GGLGAGFGGG LGAGFGGGFA GGDGLLVGSE KVTMQNLNDR LASYLDKVRA LEEANADLEV KIRDWYQRQR PSEIKDYSPY FKTIEDLRNK IIAATIENAQ PILQIDNARL AADDFRTKYE HELALRQTVE ADVNGLRRVL DELTLARTDL EMQIEGLKEE LAYLRKNHEE EMLALRGQTG GDVNVEMDAA PGVDLSRILN EMRDQYEQMA EKNRRDAETW FLSKTEELNK EVASNSELVQ SSRSEVTELR RVLQGLEIEL QSQLSMKASL ENSLEETKGR YCMQLSQIQG LIGSVEEQLA QLRCEMEQQS QEYQILLDVK TRLEQEIATY RRLLEGEDAH LSSQQASGQS YSSREVFTSS SSSSSRQTRP ILKEQSSSF SQGQSS

General References

Du ZF, Xu CM, Zhao Y, et al. (2012). Eur J Dermatol. 22(4):476-80.

