Human KLK13 / Kallikrein-13 Protein (His Tag)
Catalog Number: 10199-H08H

General Information
Gene Name Synonym:
KLK-L4; KLKL4

Protein Construction:
A DNA sequence encoding the pro-form of human KLK13 (NP_056411.1) (Met 1-Ile 262) was expressed with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing
Purity: > 95 % as determined by SDS-PAGE

Bio Activity:
Measured by its ability to cleave the fluorogenic peptide substrate Boc-VPR-AMC (R&D Systems, Catalog # ES011). The specific activity is >200 pmol/min/μg. (Activation description: The proenzyme needs to be activated by Lysyl-Endopeptidase for an activated form)

Endotoxin:
< 1.0 EU per μg of the protein as determined by the LAL method

Stability:
Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gly 18

Molecular Mass:
The recombinant human KLK13 consists of 256 amino acids and has a predicted molecular mass of 28.4 kDa. As a result of glycosylation, the apparent molecular mass of rh KLK13 is approximately 33-37 kDa in SDS-PAGE under reducing conditions.

Formulation:
Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide
Storage:
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:
Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:

Protein Description
Tissue kallikrein 13 (hK13), also known as KLK-L4 (kallikrein-like gene 4), is a member of the human tissue kallikrein family of serine proteases having diverse physiological functions in many tissues. The KLK13 gene resides on chromosome 19q13.3-4 along with other 14 members in a gene cluster and shares a high degree of homology. KLK13 is a trypsin-like, secreted serine protease expressed specifically in the testicular tissue, including prostate, salivary gland, breast, and testis. Growing evidence suggests that many kallikreins are implicated in carcinogenesis and may play a role in metastasis. KLK13 may be involved in the pathogenesis and/or progression of breast and ovary cancers, and is regarded as a novel cancer biomarker. In addition, KLK13 interacts and forms complexes with several serum protease inhibitors, such as alpha2-macroglobulin, and its expression is regulated by steroid hormones.

References