

Human KLK-8 / Kallikrein-8 Protein (His Tag)



Sino Biological Inc.

Biological Solution Specialist

Catalog Number: 11820-H08H

General Information

Gene Name Synonym:

HNP; NP; NRPN; PRSS19; TADG14; BSP1; Nrpn; Prss19

Protein Construction:

A DNA sequence encoding the human KLK8 isoform 1 (O60259-1) (Met 1-Gly 260) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to cleave the fluorogenic peptide substrate BocVPRAMC(Catalog # ES011). The specific activity is > 400pmoles/min/μg

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: Gln 29

Molecular Mass:

The recombinant human KLK8 consists of 243 amino acids and predicts a molecular mass of 26.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhKLK8 is approximately 36 kDa due to glycosylation.

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:

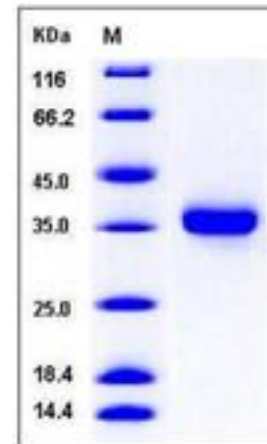
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Kallikrein-8, also known as Neuropsin, Serine protease 19, Serine protease TADG-14, Tumor-associated differentially expressed gene 14 protein and KLK8, is a secreted protein which belongs to the peptidase S1 family and Kallikrein subfamily. It is a serine protease which is capable of degrading a number of proteins such as casein, fibrinogen, kininogen, fibronectin and collagen type IV. Kallikrein-8 / KLK8 plays a role in the formation and maturation of orphan and small synaptic boutons in the Schaffer-collateral pathway. It regulates Schaffer-collateral long-term potentiation in the hippocampus and is required for memory acquisition and synaptic plasticity. It is involved in skin desquamation and keratinocyte proliferation and plays a role in the secondary phase of pathogenesis following spinal cord injury. It also cleaves L1CAM in response to increased neural activity. It induces neurite outgrowth and fasciculation of cultured hippocampal neurons. Kallikrein-8 / KLK8 is expressed at high levels in serum, ascites fluid and tumor cytosol of advanced stage ovarian cancer patients and may serve as a marker of ovarian cancer. Kallikrein-8 / KLK8 may have potential clinical value for disease diagnosis or prognosis and it may also be a useful therapeutic target.

References

- 1.Yoshida S., *et al.*,(1998), Sequence analysis and expression of human neuropsin cDNA and gene. *Gene* 213:9-16.
- 2.Underwood L.J., *et al.*, (1999), Cloning of tumor-associated differentially expressed gene-14, a novel serine protease overexpressed by ovarian carcinoma.*Cancer Res.* 59:4435-4439.
- 3.Mitsui S., *et al.*,(1999), A novel form of human neuropsin, a brain-related serine protease, is generated by alternative splicing and is expressed preferentially in human adult brain.*Eur. J. Biochem.* 260:627-634.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>