Human Kallikrein 7 Protein, Tag Free (active enzyme)

Catalog # KA7-H5213

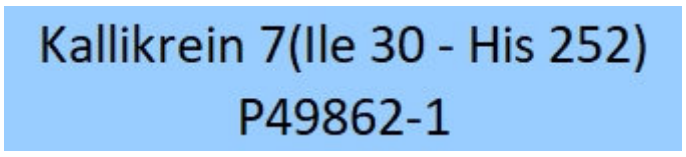
Synonym

KLK7,Kallikrein-7,PRSS6,SCCE,hK7,hSCCE

Source

Human Kallikrein 7 Protein, Tag Free(KA7-H5213) is expressed from human 293 cells (HEK293). It contains AA Ile 30 - His 252 (Accession # P49862-1). Predicted N-terminus: Ile 30

Molecular Characterization



This protein carries no "tag".

The protein has a calculated MW of 24.3 kDa. The protein migrates as 27 kDa and 29 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM HEPES, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

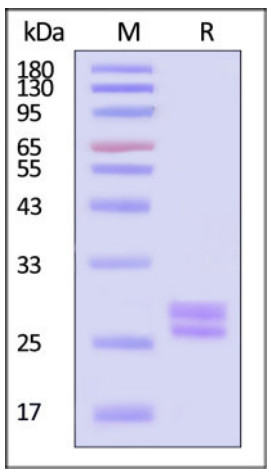
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Human Kallikrein 7 Protein, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2. The specific activity is >350 pmol/min/μg (QC tested).

Background

Kallikrein-7 (KLK7) is also known as kallikrein-related peptidase 7, Stratum corneum chymotryptic enzyme, Serine protease 6, KLK7, and PRSS6, is a secreted protein which belongs to the peptidase S1 family and Kallikrein subfamily. KLK7 is secreted as an inactive zymogen in the stratum granulosum layer of the

epidermis, requiring proteolytic cleavage of the short N-terminal pro-region to liberate activated enzyme. This may be performed by KLK5 or matriptase, which are in vitro activators of KLK7. Once active, KLK7 is able to cleave desmocollin and corneodesmosin. KLK7 activity is regulated by a number of endogenous protein inhibitors including LEKTI, SPINK6, elafin and alpha-2-Macroglobulin-like 1. Both Zn2+ and Cu2+ ions are also able to inhibit KLK7. Dysregulation of KLK7 has been linked to several skin disorders, and overexpression of KLK7 may provide a route for metastasis in several cancers.

Clinical and Translational Updates