For Research Use Only

Recombinant Human KLK14 protein (rFc Tag)(HPLC verified)

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Catalog Number: Eg2472

Basic Information

Species:
Human

Purity:
>90 %, SDS-PAGE
 >90 %, SEC-HPLC

Tag:
rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE
 >90 %, SEC-HPLC

Endotoxin Level:
<0.1 EU/ μ g protein, LAL method

Source:
HEK293-derived Human KLK14 protein Gln35-Lys267 (Accession# Q9P0G3) with a rabbit IgG Fc tag at the C-terminus.

GeneID:
43847

Accession:
Q9P0G3

Predicted Molecular Mass:
51.5 kDa

SDS-PAGE:
13 kDa, 28-32 kDa and 55 kDa, reducing (R) condition

Formulation:
Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

KLK14, or Kallikrein-14, is a protein-coding gene that belongs to the kallikrein family of secreted serine proteases. Activation of KLK14 is mediated by KLK5, and once activated, KLK14 further amplifies the activity of KLK proteases through a positive feedback loop by cleaving pro-KLK5, which is a central player in the KLK cascade. One of the most notable substrates of KLK14 is PAR2 (Protease-Activated Receptor 2). KLK14 has been implicated in various physiological functions and is suggested to be involved in carcinogenesis, with potential as a novel biomarker for diseases such as cancer and skin disorders. It is associated with diseases like Netherton Syndrome and Ovarian Cancer. Moreover, KLK14 may play a role in the activation of membrane-type matrix metalloproteinases (MT-MMPs), which are involved in the proteolytic processing of components of the extracellular matrix, modulating the pericellular environment in physiology and pathologies.

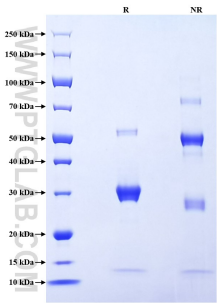
References

1. Katherine Falkowski . et al. (2020). Int J Mol Sci. 21(12):4383.
2. Hyesook Yoon. et al. (2007). J Biol Chem.282(44):31852-31864.
3. Hyun-Jeong Ra. et al. (2007). Matrix Biol. 26(8):587-596.

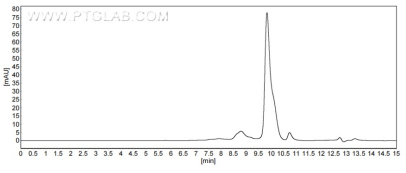
Synonyms

Kallikrein 14, Kallikrein14, KLK 14, KLK L6, KLKL6

Selected Validation Data



Purity of Recombinant Human KLK14 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



The purity of Human KLK14 was greater than 90% as determined by SEC-HPLC.