

DATASHEET

Version 20181206

Kallikrein 6, Human

Cat. No.: Z03364-10

Size: 10.0 ug

Synonyms: KLK6

Description:

Kallikrein 6 (KLK-6), also known as Zyme, Neurosin, PRSS9, myelencephalon-specific protease (MSP) and protease M, is a trypsin-like serine proteinase. Kallikreins are a subgroup of serine proteases having diverse physiological functions. Growing evidence suggests that many kallikreins are implicated in carcinogenesis, and some have potential as novel cancer and other disease biomarkers. KLK-6 was originally characterized from the brain as an enzyme involved in the degradation of amyloid plaque protein (APP) and was thought to be a beta secretase. KLK-6 was shown to be elevated in the sera of patients with Alzheimer's disease, Parkinson's disease and in animal models of multiple sclerosis. Studies indicate KLK-6 may participate in the demyelination processes and progression of CNS inflammatory disease.

Recombinant Human Kallikrein 6 produced in *CHO* cells is a polypeptide chain containing 238 amino acids. A fully biologically active molecule, rhKLK6 has a molecular mass of 31 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 EEQNKLVHGG PCDKTSHPYQ AALYTSGHLL CGGVLIHPLW
00041 VLTAHCKKP NLQVFLGKHN LRQRESSQEQ SSVVRAVIHP
00081 DYDAASHDQD IMLLRRLARPA KLSELIQPLP LERDCSANTT
00121 SCHILGWGKT ADGDFPDITQ CAYIHLVSRE ECEHAYPGQI
00161 TQNMLCAGDE KYGKDSQGD SGGPLVCGDH LRLVSWGNI
00201 PCGSKEKPGV YTNVCRTNW IQKTIQAKHH HHHHHHHH
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Source: CHO

Biological Activity: The Specific Activity is > 1200 pmol/min/ug, Measured by hKLK6's ability to cleave the fluorogenic peptide substrate Boc-Gln-Ala-Arg-AMC (R&D, ES014)

Activation Buffer: 50 mM Tris, 0.05% (w/v) Brij35, pH 8.0

Assay Buffer: 50 mM Tris, 1.0 M sodium Citrate, pH 7.5

Activate hKLK6:

Dilute hKLK6 to 200 ug/ml in Activation Buffer

Dilute lysyl endopeptidase to 2.5 mU/mL in Activation Buffer.

Combine equal volumes of 200 ug/ml hKLK6 and 2.5mU/ml lysyl-endpeptidase

Incubate at room temperature for 30 minutes.

Molecular Weight: 31 kDa, observed by reducing SDS-PAGE.

Formulation: Liquid after a 0.2 µm filtered solution in 25 mM NaOAc, 50 mM NaCl, pH 6.0.

Purity: > 95% as analyzed by SDS-PAGE.

Endotoxin Level: < 0.2 EU/ug, determined by LAL method.

Storage: Recombinant Human Kallikrein 6 remains stable up to 6 months at lower than -70°C from date of receipt under sterile conditions. Up to 3 months at lower than -70°C under sterile conditions after opening. Avoid repeated freeze-thaw cycles.