Recombinant KLK6 protein (His tag)

Catalog Number	540915
Synonyms	Neurosin; Protease M; SP59; Serine protease 18; Serine protease 9; Zyme
Species	Human
Expression System	E. coli
Accession	Q92876
Molecular Weight	Predictes a molecular mass of 26.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	22-244
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 22-244 aa (Q92876) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Kallikrein-6 (KLK6) Fragment (aa 22-244) is a high-purity protein designed for studying serine protease activity and its roles in neurodegenerative diseases and cancer metastasis. This fragment fully encompasses the Peptidase S1 domain, making it an ideal tool for functional assays and mechanistic research. Kallikrein-6 (KLK6), also known as Neurosin or Protease M, is a serine protease with a preference for arginine in the substrate P1 position and serine or proline in P2. It exhibits activity against amyloid precursor protein, myelin basic protein, gelatin, casein, and extracellular matrix components like fibronectin, laminin, and collagen. KLK6 degrades alpha-synuclein, preventing its polymerization, which suggests a critical role in Parkinson's disease and other synucleinopathies. It is also implicated in axon outgrowth regulation post-spinal cord injury and promotes tumor cell invasion and metastasis, as evidenced by reduced migration upon KLK6 antibody neutralization. Subcellularly, KLK6 is secreted and localized to the nucleus (particularly nucleoli), cytoplasm, mitochondria, and microsomes, with release into the cytoplasm under cell stress, highlighting its dynamic involvement in cellular processes.