

Lys-gingipain W83 Protein, Porphyromonas gingivalis, Recombinant (His)

General Information

Synonyms:	PrtK48;Lysine-specific cysteine proteinase;Lysine specific cysteine protease;kgp;Porphyain;prtK;prtP;Lys-gingipain W83
Protein Construction:	229-683 aa
Species:	Porphyromonas gingivalis
Expression Host:	E. coli
Accession:	Q51817
Molecular Weight:	51.6 kDa (predicted)
AA Sequence:	DVYTDHGDLYNTPVRMLVVAGAKFKEALKPWLTWKAQKGFYLDVHYTDEAEVGTTNASIKAFIHKKYNDGL AASAAPVFLALVGD TDVISGEKGGKTKKVTDLYYSAVDGDYFPEMYTFRMSASSPEELTNIIDKVL MYEKATM PDKSYLEKVLLIAGADYSWNSQVQGPTIKYGMQYYYNQEHGYTDVYNYLKAPYTG CYSHLNTGVSFANYTA HGSETAWADPLLTSQ LKALTNKDKYFLAIGNCCITAQFDYVQPCFGEVITRVKEKGAYAYIGSSPNSYWGED YYWSVGANAVFGVQPTFEGTSMGSYDATFLEDSYNTVNSIMWAGNLAATHAGNIGNITHIGAHYYWEAYHV LGDGSMVPYRAMPKTNTYTL PASLPQNQASYSIQASAGSYVAISKDGVLYGTGVANASGVATVSMTKQITEN GNYDVVITRSNYLPVIKQIQVGEP

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Cysteine proteinase with a strong preference for substrates with Lys in the P1 position. Hydrolyzes bovine hemoglobin, bovine serum albumin, casein, human placental type I collagen and human IgA and IgG. Disrupts the functions of polymorphonuclear leukocytes. May act as a virulence factor in the development of periodontal disease. Involved in the coaggregation of P.gingivalis with other oral bacteria. Has hemolytic activity; this is mediated by the adhesin domains and does not require the catalytic domain.

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