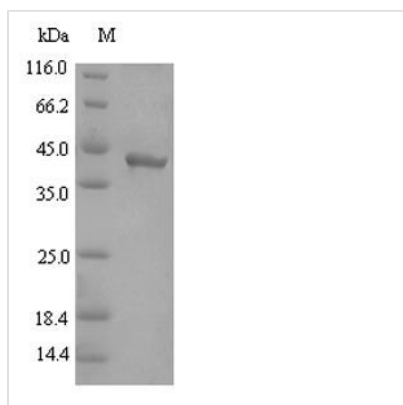


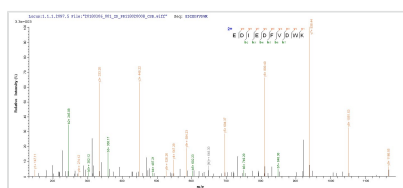


Recombinant Porphyromonas gingivalis Gingipain R2 (rgpB), partial

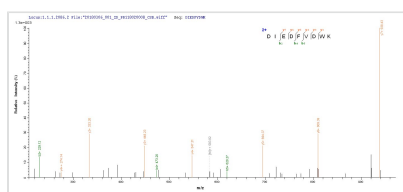
Product Code	CSB-EP310587EYA
Relevance	Thiol protease which is believed to participate in intracellular degradation and turnover of proteins. Its proteolytic activity is a major factor in both periodontal tissue destruction and in bacterial host defense mechanisms. Activates complement C3 and C5
Abbreviation	Recombinant Porphyromonas gingivalis rgpB protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P95493
Alias	Arg-gingipain Gingipain 2 RGP-2
Product Type	Recombinant Protein
Immunogen Species	Porphyromonas gingivalis (strain ATCC BAA-308 / W83)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	YTPVEEKENGRMIVIVPKKYEEDIEDFVDWKNQRGLRTEVKVAEDIASPVTANA IQQFVKQEYEKEGNDLTYVLLVGDHKDIPAKITPGIKSDQVYGQIVGNDHYNEV FIGRFSCESKEDLKTQIDRTIHYERNITTEDKWLGQALCIASAEGGPSADNGES DIQHENIIANLLTQYGYTKIIKCYDPGVTPKNIIDAFNGGISLANYTGHGSETAWG TSHFGTTHVKQLTNSNQLPFIFDVAC
Research Area	Others
Source	E.coli
Target Names	rgpB
Expression Region	230-473aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	43.3kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP310587EYA could indicate that this peptide derived from E.coli-expressed Porphyromonas gingivalis (strain ATCC BAA-308 / W83) rgpB.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP310587EYA could indicate that this peptide derived from E.coli-expressed Porphyromonas gingivalis (strain ATCC BAA-308 / W83) rgpB.

Description

Gingipain R2 (RgpB) is a cysteine proteinase found in Porphyromonas gingivalis, a bacterium associated with periodontal disease. RgpB is one of the three types of gingipains produced by P. gingivalis, with the other two being lysine-specific gingipain (Kgp) and arginine-specific gingipain A (RgpA) [1]. RgpB is characterized by its specificity for cleaving proteins after arginine residues [2]. It is a 50 kDa proteinase that lacks the hemagglutinin/adhesin domains found in other gingipains [3]. The purification of RgpB follows similar methods used for other gingipains like HRgpA and Kgp [4].

RgpB, along with RgpA, works synergistically to release bradykinin directly from high molecular weight kininogen, mimicking the action of kallikrein [5]. Additionally, RgpB has been shown to induce neuropeptide release from dental pulp cells via PAR-2 signaling [6]. The gingipain family, which includes RgpB, plays a crucial role in the pathogenesis of periodontal disease [5]. Furthermore, RgpB has been studied for its role in activating blood coagulation factor IX [7].

References:

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<https://doi.org/10.1556/eujmi.1.2011.1.7>
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Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.