LAMPIRAN

Lampiran 1. Hasil identifikasi gen menggunakan *National Center for Biotechnology Information* (NCBI)

MULTISPECIES: S8 family serine peptidase [Bacillus cereus group]

⬇ Download Datasets

NCBI Reference Sequence: WP_000754168.1

Identical Proteins   FASTA   Graphics

Go to: ⌄

```
LOCUS       WP_000754168            917 aa            linear   BCT 06-JAN-2020
DEFINITION  MULTISPECIES: S8 family serine peptidase [Bacillus cereus group].
ACCESSION   WP_000754168
VERSION     WP_000754168.1
KEYWORDS    RefSeq.
SOURCE      Bacillus cereus group
  ORGANISM  Bacillus cereus group
            Bacteria; Firmicutes; Bacilli; Bacillales; Bacillaceae; Bacillus.
COMMENT     REFSEQ: This record represents a single, non-redundant, protein
            sequence which may be annotated on many different RefSeq genomes
            from the same, or different, species.

            ##Evidence-For-Name-Assignment-START##
            Evidence Category  :: HMM
            Evidence Accession :: NF012311.1
            Evidence Source    :: EMBL-EBI
            Source Identifier  :: PF00082.22
            ##Evidence-For-Name-Assignment-END##
            COMPLETENESS: full length.
FEATURES             Location/Qualifiers
     source          1..917
                     /organism="Bacillus cereus group"
                     /db_xref="taxon:86661"
     Protein         1..917
                     /product="S8 family serine peptidase"
                     /calculated_mol_wt=98702
     Region          56..>421
                     /region_name="AprE"
                     /note="Serine protease, subtilisin family
                     [Posttranslational modification, protein turnover,
                     chaperones]; COG1404"
```

Lampiran 2. Hasil perhitungan analisa kadar protein

Persamaan garis yang diperoleh : $y = 0,1230 + 0,0273x$

y diketahui sebagai niali absorbansi sampel, dan x diketahui sebagai kadar protein dalam µg.

$0,391 = 0,1230 + 0,0273x \longrightarrow x = 9,81685$ x $100 = 981,685$ µg/µL (Berat protein)

Karena sampel yang digunakan adalah 50 µL, maka 981,685 µg/50 µL = **19,63 mg/mL** (kadar protein yang didapat).

Lampiran 3. Cara perhitungan dapar borat 0,1 M pH 7,8

6,183 gram asam borat dan 7,45 gram kalium bromida dilarutkan dengan 500 mL aquades didalam 1000 mL labu takar, kemudian diukur pH sampai didapatkan pH 7,8.

**Lampiran 4. Hasil perhitungan indeks fibrinolitik**

$$\text{Indeks Fibrinolitik} = \frac{Diameter\ zona\ bening\ (cm)}{Diameter\ koloni\ (cm)}$$

- Sampel konsentrasi 20 %

  $$\text{Indeks Fibrinolitik} = \frac{2,54}{7,00} = 0,36$$

- Sampel konsentrasi 40 %

  $$\text{Indeks Fibrinolitik} = \frac{6,11}{7,00} = 0,87$$

- Sampel konsentrasi 80 %

  $$\text{Indeks Fibrinolitik} = \frac{7,94}{7,00} = 1,13$$

- Kontrol positif Nattokinase

  $$\text{Indeks Fibrinolitik} = \frac{60,46}{7,00} = 8,64$$

Lampiran 5. Foto isolat bakteri *Bacillus cereus* pada media *Nutrient Agar*

Lampiran 6. Foto suspensi bakteri *Bacillus cereus*
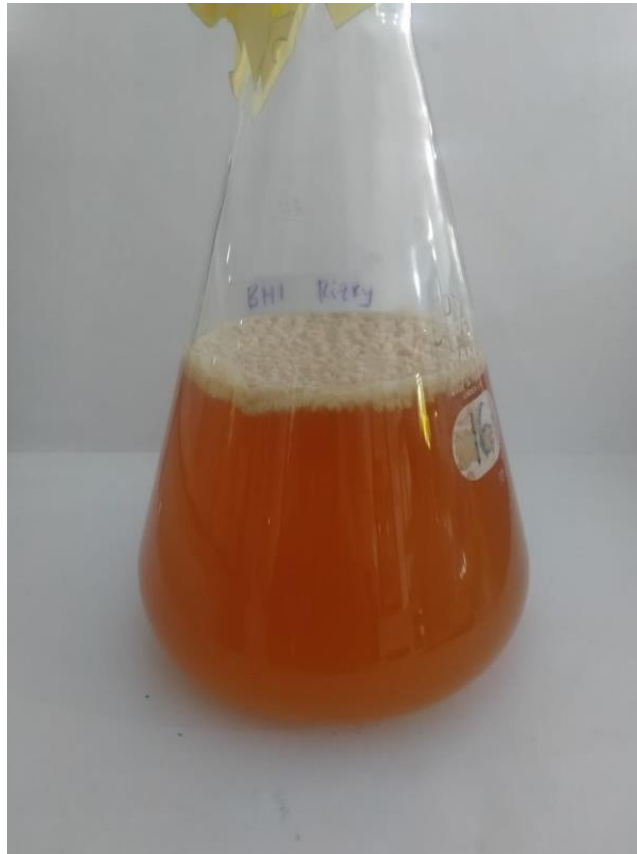
Lampiran 7. Foto proses isolasi ekstrak kasar enzim fibrinolitik
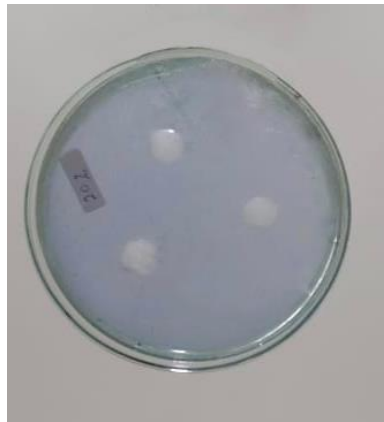

Sampel hasil sentrifugasi pertama
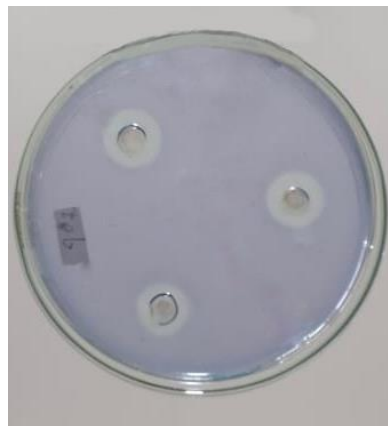

Proses pencucian sampel dengan WFI

Supernatan hasil sonikasi (*crude enzym*)

Lampiran 8. Foto hasil uji aktivitas fibrinolitik pada media plat fibrin

1. **Uji aktivitas fibrinolitik ekstrak kasar enzim bakteri *Bacillus cereus***
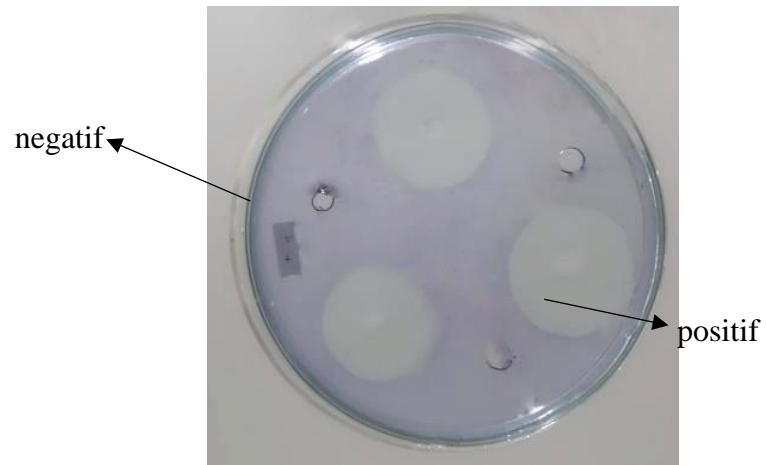

Konsentrasi 20%

Konsentrasi 40%

Konsentrasi 80%

2. Kontrol positif Nattokinase dan kontrol negative

negatif

positif

Lampiran 9. Foto alat yang digunakan selama penelitian

Neraca analitik

Inkubator

Lemari pendingin

autoklaf

sentrifugator

Mikroskop binokuler

Vortex

Sonikator

Lampiran 10. Hasil analisis statistik aktivitas fibrinolitik ekstrak kasar enzim bakteri *Bacillus cereus*

1. **Normalitas**

Tests of Normality

	konsentrasi	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
diameterzonabening	20	,219	3	.	,987	3	,780
	40	,299	3	.	,915	3	,435
	80	,273	3	.	,946	3	,550
	K+	,224	3	.	,984	3	,760

a. Lilliefors Significance Correction

Kesimpulan : Data terdistribusi normal (Sig ≥ 0,05) dan dilanjutkan dengan uji *One-Way* ANOVA

Homogenitas

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
diameterzonabening	Based on Mean	1,983	3	8	,195
	Based on Median	,597	3	8	,634
	Based on Median and with adjusted df	,597	3	5,246	,643
	Based on trimmed mean	1,849	3	8	,217

Kesimpulan : Data bervariasi homogen (Sig ≥ 0,05) dan dilanjutkan dengan uji *One-Way* ANOVA

ANOVA

diameterzonabening

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6835,050	3	2278,350	7367,936	,000
Within Groups	2,474	8	,309		
Total	6837,524	11			

Kesimpulan: Data (Sig ≤ 0,05), terdapat perbedaan dari masing-masing kelompok uji

2. *Post Hoc Test*

diameterzonabening

Tukey HSD[a]

konsentrasi	N	Subset for alpha = 0.05			
		1	2	3	4
20	3	2,5400			
40	3		6,1067		
80	3			7,9433	
K+	3				60,4633
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.