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Sequence Homology and Epitope Prediction of 37 kDa Outer Membrane Protein H(ompH) Gene of *Pasteurella Multocida* Type B Isolate from Nusa Tenggara Timur (NTT)

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Abstract

Haemorrhagic Septicaemia (HS), in Indonesia known as Ngorok disease is a fatal acute septicemia disease in cattle and buffalo caused by *Pasteurella multocida*. Outer membrane Protein H (OmpH) is one of the major proteins in *P. multocida* envelope has been purified and characterized as porin immunodominant. The aim of this study is to find out the homology of nucleotide sequence of 37 kDa OmpH gene of *P. multocida* of local isolate from NTT with vaccine strain (Katha) and 5 referen isolates and predict the epitope of 37 kDa OmpH gene. Detection of 37 kDa OmpH gene was done using PCR. Homology analysis of nucleotide and amino acid sequences was performed on the BLAST program at NCBI. Epitope prediction of 37 kDa OmpH genes *P. multocida* from NTT and vaccine strains was performed using the online programme B Cell Epitope Prediction Tools. The results showed that 37 kDa OmpH gene of *P. multocida* from NTT has 99% homology to vaccine strain (Katha) and isolates from China, Iran, India, Mesir, and 89% homology to isolate from USA and 37 kDa OmpH gene of *P. multocida* local isolate from NTT were likely to be immunogen candidates based on B cell epitope that had 11 epitopes. These findings indicate that *P. multocida* local isolate from NTT has a chance as immunogen candidate, which can be developed as a vaccine candidate and diagnostic kit for HS.

Keywords: Haemorrhagic septicaemia; *P. multocida* type B; outer membrane protein H(omp H) gene; PCR; sequence; epitope.

Introduction

Hemorrhagic Septicemia caused by *Pasteurella multocida* is a fatal acute septicemia disease in cattle and buffalo. In perspective of economic, it becomes the most important bacterial disease in Southeast Asia including Indonesia, Philippines, Thailand, Malaysia, Middle East and South Africa^[1].

In Indonesia, HS outbreak still occurs although vaccination has been done once a year using vaccine made from Katha strain. The most recent case is the sudden death of 24 livestock in Kupang district, NTT in December 2016. The results of laboratory tests at the Balai Besar Veteriner Denpasar, confirmed the death of these livestock due to HS ^[2].

P. multocida strains belong to sero group B and E are the one who cause HS. The complex interactions between host factors and bacterial virulence factors, such as lipopolysaccharide (LPS), capsule, protein outer membrane (omp), and putative hemolysin has an effect on the pathogenesis of the disease^[3].

Outer membrane Protein H (OmpH) is one of the main proteins in *P. multocida* envelopes that has been

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purified and marked as immunodominant porin. This porin is highly immunogenic, showing epitopes on the surface of bacteria [4]. Study by Tan et al.^[5] using mice polyclonal antiserum in immunoblotting studies showed that omp with a molecular weight of 37 kDa was reactive to all local isolates and ATCC strains. In the same study, recombinant 37 kDa OmpH can protect mice and be able to stimulate high antibody titers.

The new vaccination approach based on the rational design of B cell and T cells epitopes (epitope-based vaccines) promises a great induction of immune responses, and can handle more effective pathogens with genetic variation^[6]. Identification of epitopes suitable for diagnostic use or prophylactic intervention is an important prerequisite for epitope-based vaccines and diagnostics.

The purpose of this study is to find out the homology of nucleotide sequence of 37 kDa OmpH gene of *P. multocida* of local isolate from NTT with vaccine strain (Katha strain) and 5 referen isolates and predict epitope of 37 kDa OmpH gene.

Material and Method

Sample: *P. multocida* isolate from NTT (Nusa Tenggara Timur) were obtained from Balai Besar Veteriner Denpasar, Bali. Previously, this isolate had been tested for its capsular type. Haemorrhagic Septicaemia vaccine from Pusat Veterinaria Farma (Pusvetma) Surabaya was used as a vaccine strain (Katha) sample. Reference isolates from GenBank were used as a comparison with accession numbers, namely: HM582886.1 (China), CP017961.1 (Iran), FN908433.1 (India), KY436382.1 (Egypt), CP015562.1 (USA).

Reculture and Identification of *P. multocida*: *P. multocida* isolate was re-cultured in Blood Agar media and incubated for 24-28 hours at 37° C. After that, the morphology was seen using Gram examination and its growth on MacConkey Agar (MCA). Furthermore, the examination using biochemical test, namely: TSIA test, SIM test, SCA test, Urease test, and Sugar test^[7].

DNA Extraction: Total genomic DNA was extracted with QIAamp® DNA Mini kit according to standard protocol Qiagen^[8]. Briefly, bacteria that have been cultured on Nutrient Agar (NA) at 37°C overnight, were inserted into tube. After addition of bacteria/vaccine incubated at 60 °C for 30 minutes. The 200µL AL buffer is added to the tube, then vortex. The mixture

of the ingredients in the tube is transferred to the spin column, then adds 200 µL of 96% ethanol. After that, centrifuged at 8,000 rpm for 1 minute and washed using AW1 500µL. Then centrifuged back at 8.000rpm for 1 minute and washed again using AW2 as much as 500µL. After that centrifuged at 13,000 rpm for 3 minutes and the bottom of the spin column removed. After that, it was centrifuged again for 1 minute at 13,000 rpm and transferred to an empty sterile tube. After that added 50µL AE Buffer and incubated at room temperature for 1 minute. Then centrifuged at 8,000 rpm for 1 minute

PCR assay: Amplification of the ompH gene was performed using both ompH-F and ompH-R primer in 20µl PCR mixture. The primers used was developed from the primers used by Tan et al.^[5]. Primer ompH-F forward 5'-CAGCAACAGTTTACAATCAAGACGGTAC-3 'and omp H-R reverse 3'-GAAGTGACGCGTAAACC-5' with gene target 946 bp. The thermal cycling conditions are: 1 cycle at 95°C for 5 minutes; 40 cycles at 94°C for 30 sc, 50°C for 1 minute, and 72°C for 1.5 min; 1 cycle at 72°C for 10 minutes. This PCR profile is repeated three more times to ensure specific PCR products. The PCR product was analyzed by electrophoresis in 1% agarose gel.

Sequencing: Purification of the PCR product was carried out with QIA quick spin column from Qiagen. Addition of Big Dye Terminator 1.1 cycle version as much as 1.6 µl and 5x sequencing buffer as much as 6.4 µl, then added H₂O ad libitum. Then the mixture was put into the PCR machine with a pre denaturation program of 96°C for 3 minutes. 25 cycles for denaturation 96°C for 10 seconds, annealing 50°C for 5 seconds, extension temperature 60°C for 4 minutes. Final extension 4°C. After that, 3M NaOAC 2 µl (± 1/10 x vol) and 95% ethanol 50 µl (± 2 x Vol) were added then vortexed and incubated in ice for 10 minutes. Then centrifuged 14,000 rpm for 20 minutes at 4°C. Then the ethanol solution is slowly taken, after that pellet is added 200µl 70%-80% ethanol, then centrifuged 14,000 rpm for 5 minutes at 4°C. Then a 70% ethanol solution is slowly taken, then the resulting pellets are dried in the vacuum pump for 10 minutes, and stored at -20°C^[9].

Homology Analysis and Epitope Prediction: Sequencing results were processed using Bioedit program. Homology analysis was carried out using the BLAST program at NCBI (National Center for Biotechnology Information). Homology analysis of sequence of 37 kDa OmpH of NTT local isolate

compared with vaccine and nucleotide sequence data of 5 isolates from other countries accessed from GenBank. The nucleotide sequences of the 37 kDa OmpH were then translated into amino acid sequences using the online DNA to Protein Translation program. Epitope prediction was carried out through the B Cell Epitope Prediction Tools online program.

Nucleotide Sequence Accession Number: The DNA sequence of the 37 kDa OmpH gene of *P. multocida* isolate from NTT and vaccine were submitted to GenBank and assigned the accession number MK183754 and MK205393.

Result and Discussion

Reculture and Re-identification of Pasteurella multocida: Recultured on Blood Agar showed the colonies were transparent, grayish, shiny, and were found to be non haemolytic. No growth was observed on MacConkey Agar medium. The colonies were then confirmed by biochemical test, while it fermented glucose, fructose, mannitol and sucrose, but did not ferment maltose and lactose, the TSIA was obtained in alkaline slant and butt, yielding no gas and H₂S. The colonies were positive for indole test and no reaction was seen with Simon Citrate Agar and Urease medium.

The ompH gene was successfully amplified using OmpH-F and OmpH-R primers. The PCR product was obtained with the same band size of 946 bp of both samples (Fig. 1).

Study by Kanaiyalal^[10] on the OmpH gene *P. multocida* HS case obtained 1kb PCR products. Whereas Tan et al.^[5] whose primers were used in this study 37 kDa OmpH gene was obtained 980 bp.

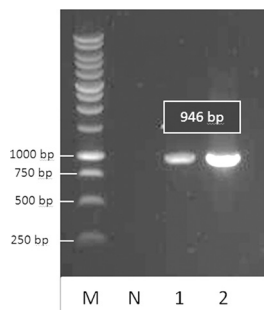


Figure 1. PCR detection of ompH gene of *P. multocida*. Lane M: 1kb molecular ladder (Vivantis); N negative control; 1 *P. multocida* from vaccine; 2 local isolate of *P. multocida*

The sequencing results of *P. multocida* isolate from

NTT was 894 bp while for *P. multocida* from vaccine was 893 bp. In the analysis of nucleotide sequence of the 37 kDa OmpH gene *P. multocida*, the total length of the nucleotides that are parallel to the gap and insertion is 909 nucleotides. Table 1. shows the results of homology analysis.

The results showed that 37 kDa OmpH gene *P. multocida* from NTT isolate was relatively more similar to isolates from the continents of Asia and the Middle East. Nucleotide sequences of 37 kDa OmpH *P. multocida* isolates NTT and vaccines showed high homological levels of *P. multocida* OmpH from other countries.

The results of the protein sequences of the 37 kDa OmpH *P. multocida* NTT isolates were 298 amino acids while the vaccines were 297 bp amino acids. Kanaiyalal^[10] obtained 296 amino acids of OmpH protein sequence in cattle and buffaloes. Multiple sequence alignment from amino acid sequences showed that 37 kDa OmpH *P. multocida* from several countries shows high homology with little variation in amino acid composition in several parts. Luo et al.^[11] aligned the OmpH sequence of 15 *P. multocida* serotypes and found that this protein was very conserved (72-100% identity), which supports the findings of this study.

Results of analysis of amino acid sequence OmpH *P. multocida* P-52 by Singh et al.^[12] obtain the greatest variation limited to two discrete regions that are associated with the hydrophilic domain, i.e. amino acids to 82-102 and 223-240. According to Sellyei et al.^[13] these two discrete regions encode large external loops that might interact with the host's immune system. This variable area can work as a strain-specific epitope that takes an important role in serotype specific immune responses^[12].

Epitope prediction was done using Kolaskar and Tongaonkar Antigenicity scale. The results of the prediction of B cell epitope on 37 kDa OmpH were found 11 epitopes in NTT isolate and vaccine, with 9 identical epitopes, namely: GLSALAYAEL, DVHVKRLYAGF, DVGVS DYTYFLG, GAYVFSA, GFVVAGL, SQKYVTVA, ALEVGLN, KVYTDL, and SIILGAGYKLHKQVETF (Table 2 and Table 3).

The ability of epitope to induce an immune response is determined by the log score, the greater the log score, the better the ability of epitope to induce immunity. The linear epitope prediction results showed that 37 kDa *P.*

multocida OmpH local isolates NTT and vaccine strains were immunogenous and had almost the same ability to induce humoral responses, with the best ability, namely epitope with the largest log score of 1,266.

Epitope identification and analysis can show that proteins are responsible for triggering the body's immune response, and proteins with high immunogenic properties can be used for the development of peptide-based vaccines from Indonesian local isolates. In the diversity of epitopes in pathogens, it is important to note that not all epitopes, even those that appear dominant, are equally capable of producing antibody production. Particularly for linear epitope B cells there are several reasons, including, the accuracy of epitope prediction results is only 75% and most B cell epitopes (approximately 90%) are conformational, some studies have found that linear B epitope cells produce antibodies that do not cross reacting with original antigens and linear B epitope cells does not always give rise to memory cells so that to know the ability of the epitope to protect exactly need continuous research [14][15].

Table 1. Homological Value of Nucleotide Sequences of OmpH P. multocida NTT Isolate and Vaccine

Reference Isolate (GenBank)	NTT isolate	Vaccine
Pasteurella multocida outer membrane protein H (OmpH) gene, complete cds. Accession HM582886.1. Cina	99%	99%
Pasteurella multocida strain Razi_Pm0001, complete genome. Accession CP017961.1. Iran	99%	99%
Pasteurella multocida partial OmpH gene for outer membrane protein H, strain P 52. Accession FN908433.1. India	99%	99%
Pasteurella multocida strain PM/VSVRI/1962 outer membrane protein (OmpH) gene, partial cds. Accession KY436382.1. Egypt	99%	99%
Pasteurella multocida strain USDA-ARS-USMARC-59910 chromosome, complete genome. Accession CP015562.1. USA	89%	89%
Vaccine Katha strain	99%	100%

Table 2. Prediction of Cell B Epitope from Sequence of Amino Acid OmpH P. multocida NTT Isolate

Cell B Epitope Prediction (Kolaskar and Tongaonkar Antigenicity Method)				
No.	Amino Acid Position	Peptide	Length	Log Score
1.	4-10	SVRLILK	7	0,877
2.	37-46	GLSALAYAEL	10	1,027
3.	69-79	DVHVKRLYAGF	11	1,073
4.	98-109	DVGVS DYTYFLG	12	1,102
5.	136-142	GAYVFSA	7	0,876
6.	154-160	GFVVAGL	7	0,885
7.	177-184	SQKYVTVA	8	0,941
8.	197-212	ELSYAGLALGVDYAQS	16	1,206
9.	223-229	ALEVGLN	7	0,868
10.	237-242	KVYTDL	6	0,804
11.	258-274	SIILGAGYKLHKQVETF	17	1,226
	Total	11		

Table 3. Prediction of Cell B Epitope from Sequence of Amino Acid OmpHP. multocida Vaccine strain (Katha).

Cell B Epitope Prediction (Kolaskar and Tongaonkar Antigenicity Method)				
No.	Posisi Asam Amino	Peptide	Lenght	Log Score
1.	4-12	NGSVRLILK	9	0,985
2.	39-48	GLSALAYAEL	10	1,027
3.	71-81	DVHVKRLYAGF	11	1,073
4.	100-111	DVGVS DYTYFLG	12	1,102
5.	138-144	GAYVFSA	7	0,876
6.	156-162	GFVVAGL	7	0,885

7.	179-185	SQKYVTVA	8	0,941
8.	200-212	YAGLALGVDYAQS	13	1,113
9.	223-229	ALEVGLN	7	0,868
10.	237-242	KVYTDL	6	0,804
11.	258-274	SIILGAGYKLHKQVETF	17	1,226
	Total	11		

Conclusion

From this study it can be concluded that *P. multocida* local isolate from NTT has a high homology in nucleotide sequence and gene of 37 kDa OmpH *P. multocida* local isolate from NTT can be potential as immunogenic candidates that can be used as vaccine candidates and diagnostic kits.

Ethical Approval: Not required.

Conflict of Interest: None declared.

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References

- Jabeen A, Khattak M, Munir S, Jamal Q, Hussain M. Antibiotic Susceptibility and Molecular Analysis of Bacterial Pathogen *Pasteurella multocida* Isolated from Cattle. *Journal of Applied Pharmaceutical Science*. 2013. 3 (04): 106-110
- Bere SM. Lab Results Ensure Cattle Death in NTT Due to “Ngorok” Disease. *Kompas*. 2017 (Available: <https://regional.kompas.com/>)[cited:17 April 2018].
- Joshi S, Tewari K, Singh R. Comparative immunogenicity and protective efficacy of different preparations of outer membrane proteins of *Pasteurella multocida* (B:2) in a mouse model. *Veterinarski Arhiv*. 2013. 83 (6): 665-676.
- Luo Y, Glisson JR, Jackwood MW, Hancock REW, Bains M, Cheng IN, Wang C. Cloning And Characterization Of The Major Outer Membrane Protein Gene (OmpH) Of *Pasteurella multocida* X-73. *J. Bacteriol*. 1997. 179: 7856-7864.
- TanHY, Nagoor NH, and Sekaran SD. Cloning, expression and protective capacity of 37 kDa outer membrane protein gene (ompH) of *Pasteurella multocida* serotype B:2. *Tropical Biomedicine*. 2010. 27(3): 430–441
- Oyarz P, and Kobe B. Recombinant and Epitope-Based Vaccines On The Road To The Market And Implications For Vaccine Design And Production. *Hum. Vacc. & Immunotherap*. 2016. 12(3): 763–767.
- Fajrin FA. Detection of Genes of Encoding Capsular of *P. multocida* type A in Fowl Cholera with Polymerase Chain Reaction Technique. Faculty of Veterinary Medicine. Universitas Airlangga. 2016
- Qiagen. QIAamp® DNA Mini dan Blood Mini Handbook 5-ed. 2016 (Available: <https://www.qiagen.com/>) [cited: 28 Januari 2018].
- Appliedbiosystem. Manual Prosedur. 2010 (Available: <http://www.appliedbiosystems.com/>). [cited: 29 Agustus 2017].
- Kanaiyalal SA. Cloning, Sequencing and Sequence analysis of ompH gene of bovine *Pasteurella multocida* [Thesis]. Department Of Veterinary Microbiology College Of Veterinary Science And Animal Husbandry Anand Agricultural University. Gujarat. 2010.
- Luo y, Zeng Q, Glisson JR, Jackwood W, Cheng IN, Wang C.. Sequence Analysis of *Pasteurella multocida* Major Outer Membrane Protein (OmpH) And Application Of Synthetic Peptides In Vaccination Of Chickens Against Homologous Strain Challenge. *Vacc*. 1999. 17: 821-831.
- Singh R, Tewari K, Packiriswamy N, S. M. and Rao VDP. Molecular Characterization And Computational Analysis Of The Major Outer Membrane Protein (OmpH) Gene Of *Pasteurella multocida* P52. *Veterinarski Arhiv*. 2011. 81. (2): 211-222.
- Sellyei B, Ivanics E, Magyar T. Characterization of Avian *Pasteurella multocida* Strains With PCR-

- RFLP Analysis of The OmpH Gene. *Microbiol. Open.* 2012. 61: 48-64.
14. Sanchez-Trincado JL, Gomez-Perosanz Mand Reche PA. Fundamentals and Method for T-and B-Cell Epitope Prediction[Review]. *J. of Immun. Res.* 2017. 1-14
 15. Corcoran A, Mahon BP, Doyle S. B Cell Memory is Directed Toward Conformational Epitopes of Parvovirus B19 Capsid Proteins and The Unique Region of VP1. *J. Infect. Dis.* 2004.189:1873-1880.

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