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LAYANAN ANALISIS INBIO *(OPEN PROJECT)*

Berikut ini adalah prediksi dan penjelasan dari masing-masing layanan *open project* INBIO beserta kisaran biayanya. **Kisaran biaya** yang ada di dokumen ini sifatnya **dapat berubah** tergantung dengan kompleksitas data yang akan dianalisis.

Analisis Potensi Drug, Bioactive Herbal & Marine & Peptide (3 – 6jt)

a. Potensi bioactive herbal dengan pendekatan Structure Activity Relationship

b. Analisa kemiripan bioactive dengan drug menggunakan Similarity Prediction

c. Pharmacokinetics Analysis: Absorption, Distribution, Metabolism, Excretion & Toxicity

d. Gene & Protein target identification bioactive compounds

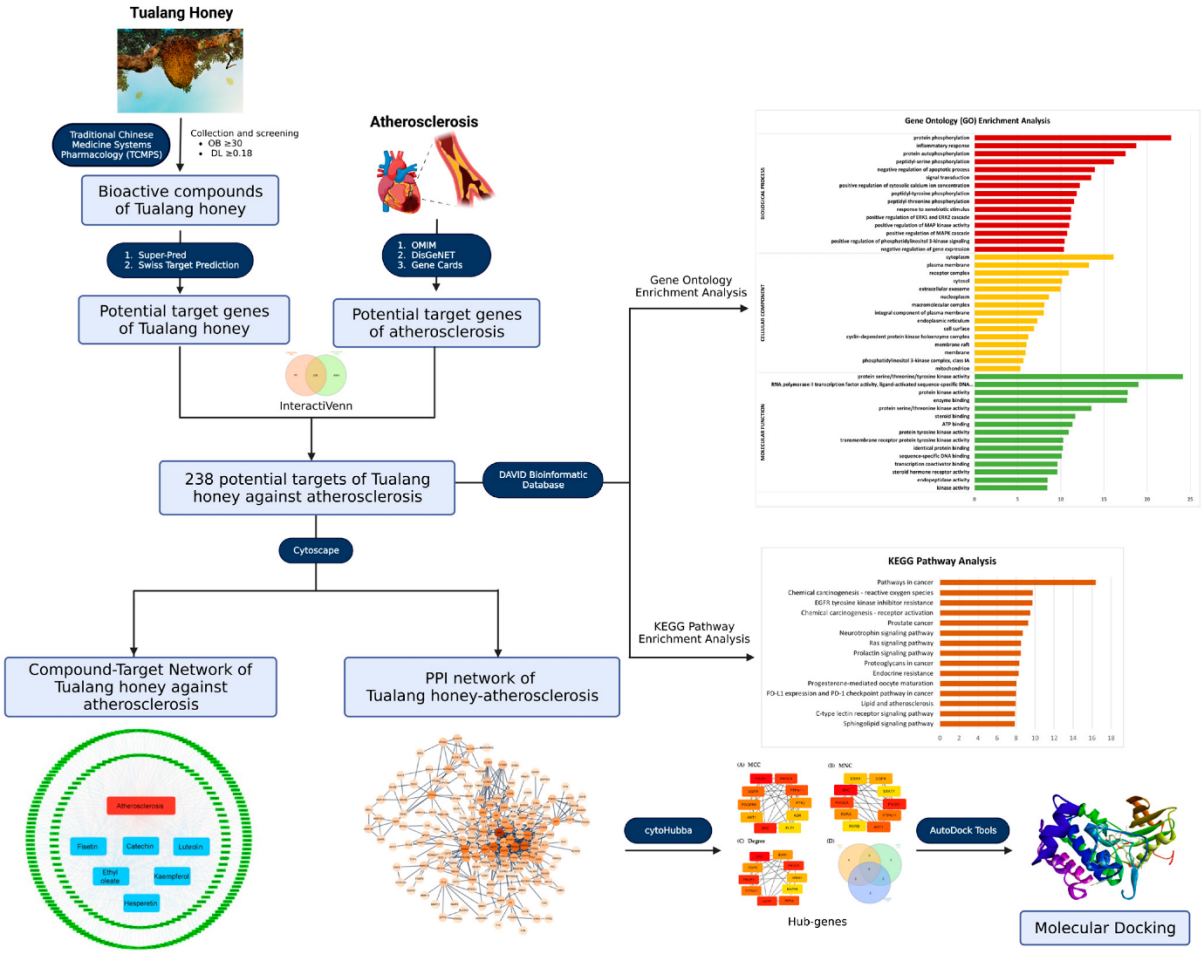
e. Network Pharmacology Protein – Protein Interaction

f. Graph topological analysis score untuk mencari core protein dari target bioactive yang paling berperan penting dalam disease

g. Functional Annotation untuk melihat peranan gene target dalam pathway

h. Molecular Docking untuk melihat kekuatan interaksi antara bioactive dan protein target

https://www.mdpi.com/2304-8158/12/9/1779



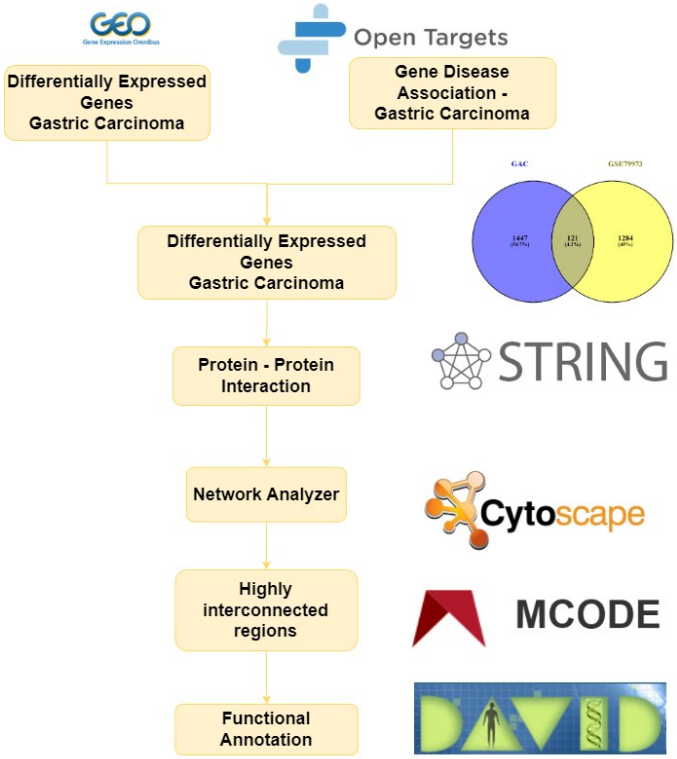
Differentially Expressed Genes (DEGs) Analysis (4 – 6 jt)

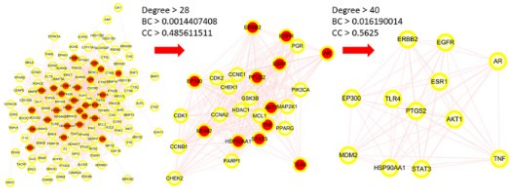
a. Analisa Up Regulated Gene & Down Regulated Gene

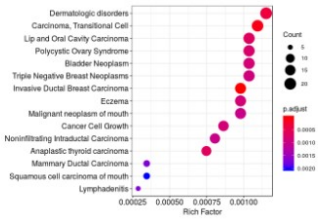
b. Network Pharmacology Protein – Protein Interaction

c. Graph topological analysis score untuk mencari core protein pada disease

d. Functional Annotation untuk melihat peranan gene target dalam pathway

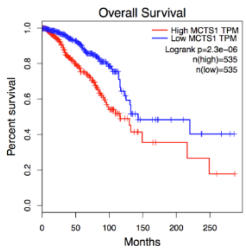






MCTS1 in breast cancer

Gene Symbol	Gene ID	P-Value (Survival os)
MCTS1	ENSG00000232119.7	2.02e-6
OVOS2	ENSG00000177359.17	1.19e-5
MAPT-IT1	ENSG00000279685.2	1.51e-5
ATG4A	ENSG00000101844.17	1.68e-5
SLC16A2	ENSG00000147100.9	2.15e-5
SLC35A2	ENSG00000102100.14	2.67e-5
VDAC1	ENSG00000213585.10	3.01e-5
TBC1D24	ENSG00000162065.11	5.02e-5
RP11-214F16.8	ENSG00000280710.2	5.21e-5
PDP1	ENSG00000164951.15	5.29e-5



Micro-RNA Analysis (2 – 3 jt)

a. Gene target prediction dari micro-RNA

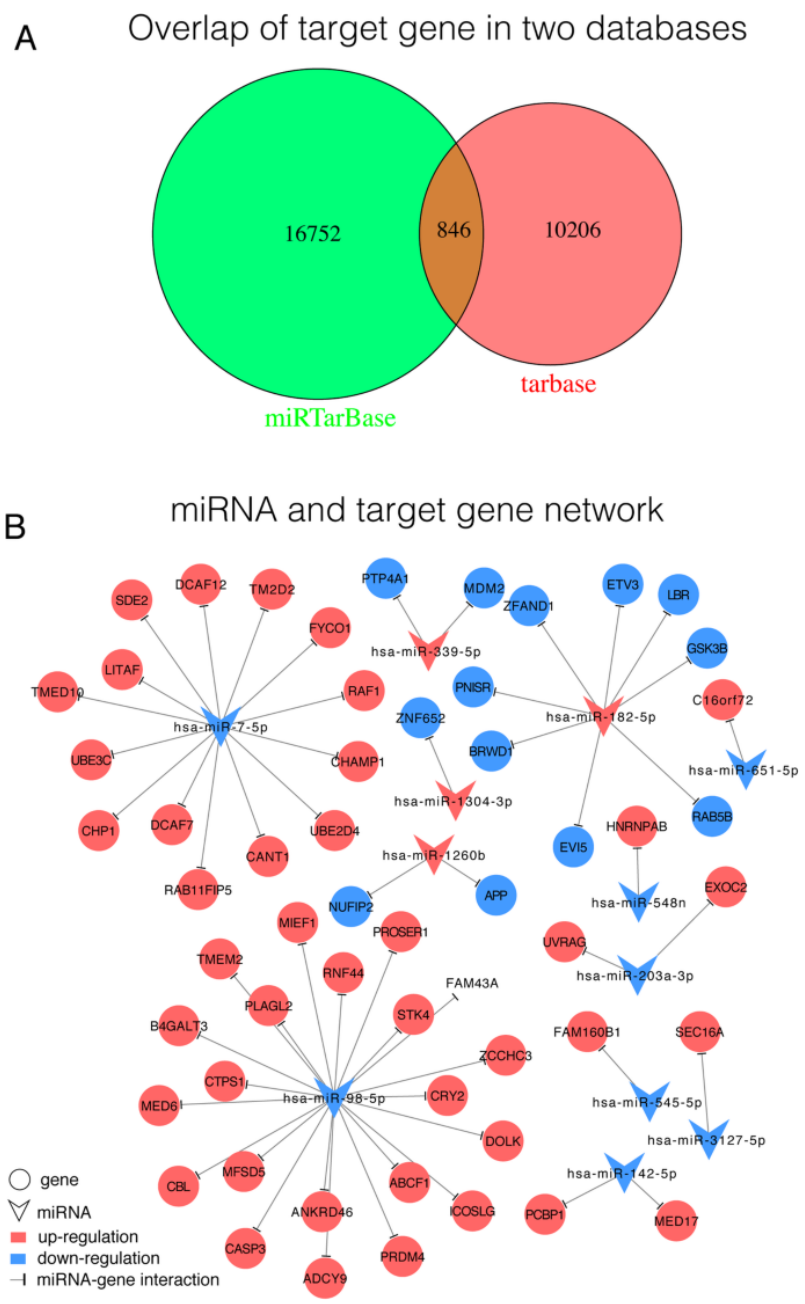
b. Predicted target prediction dari micro-RNA

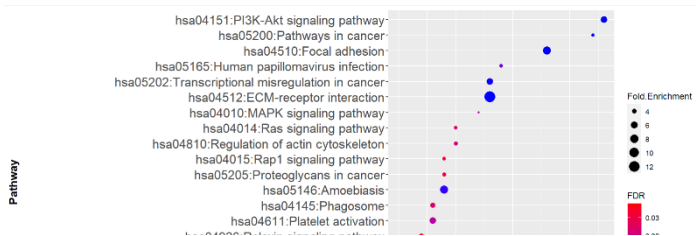
c. Experimental target dari micro-RNA

d. Functional annotation enrichment analysis untuk melihat peranan gene target dalam pathway

e. Keterkaitan micro-RNA dengan disease

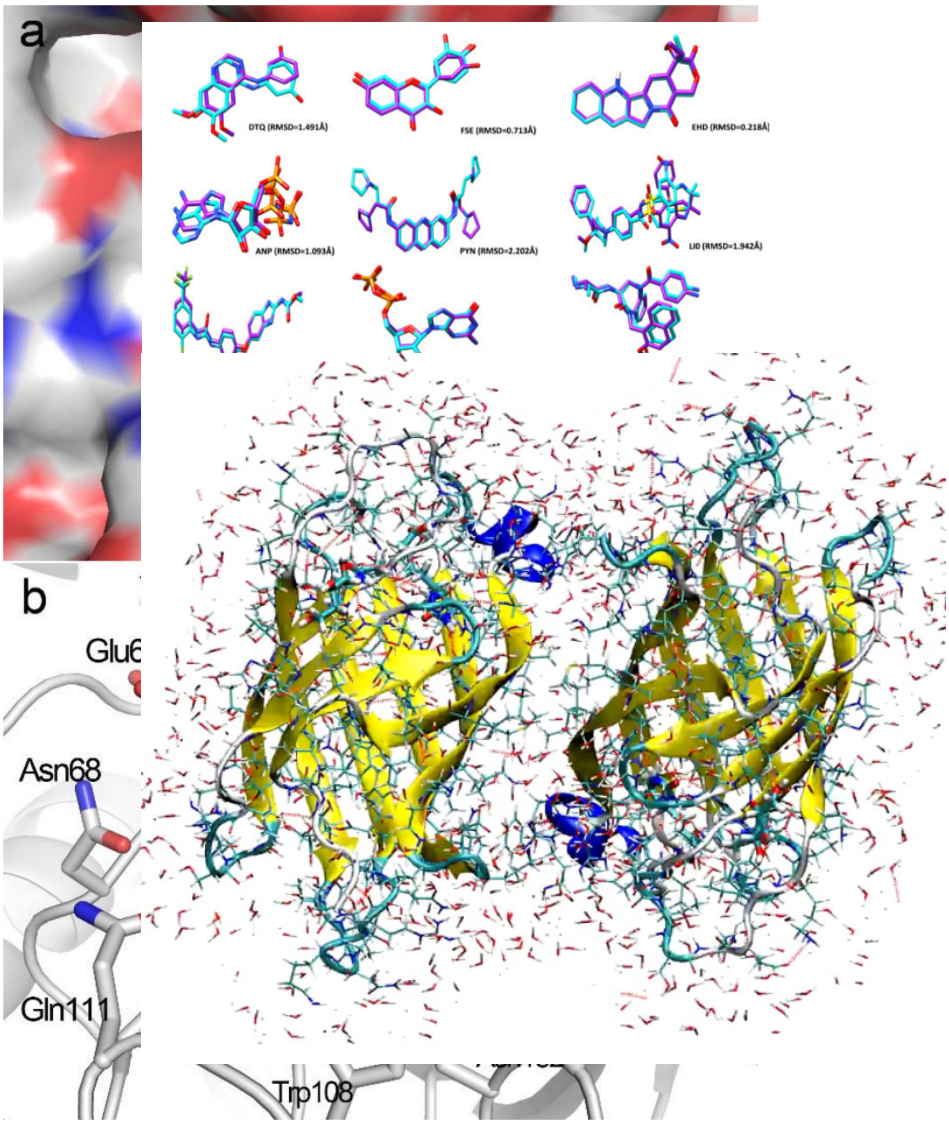
https://josr-online.biomedcentral.com/articles/10.1186/s13018-021-02201-2

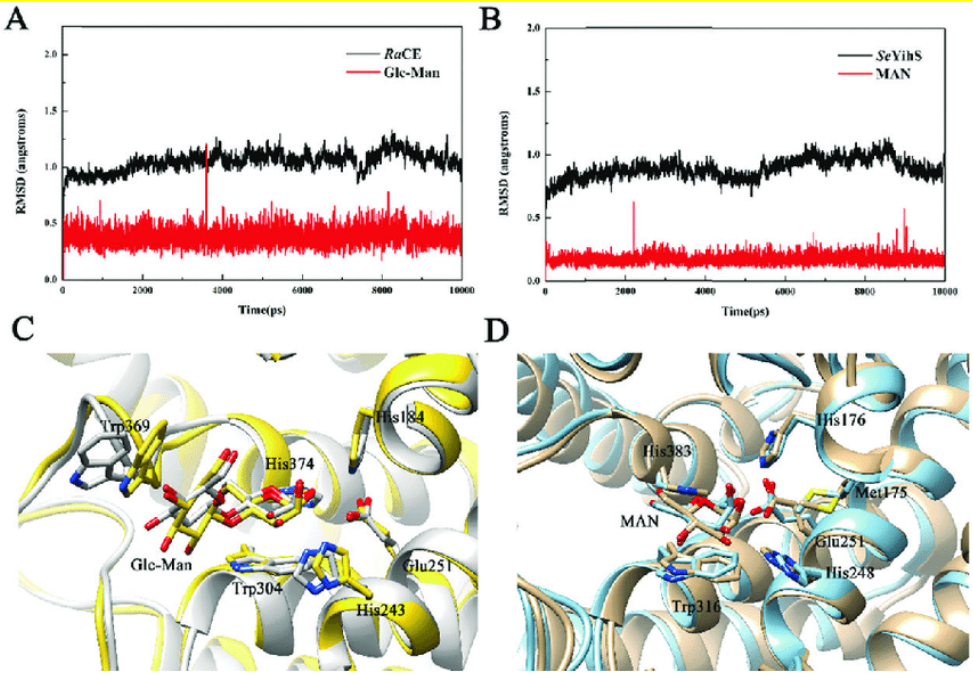




Molecular Docking dan Molecular Dynamic Analysis (1 – 6 jt)

a. Binding affinity analysis
b. Binding pose analysis
c. Amino acid residu interaction analysis
d. Stability binding interaction protein – bioactive analysis
e. RMSD & RMSF analysis

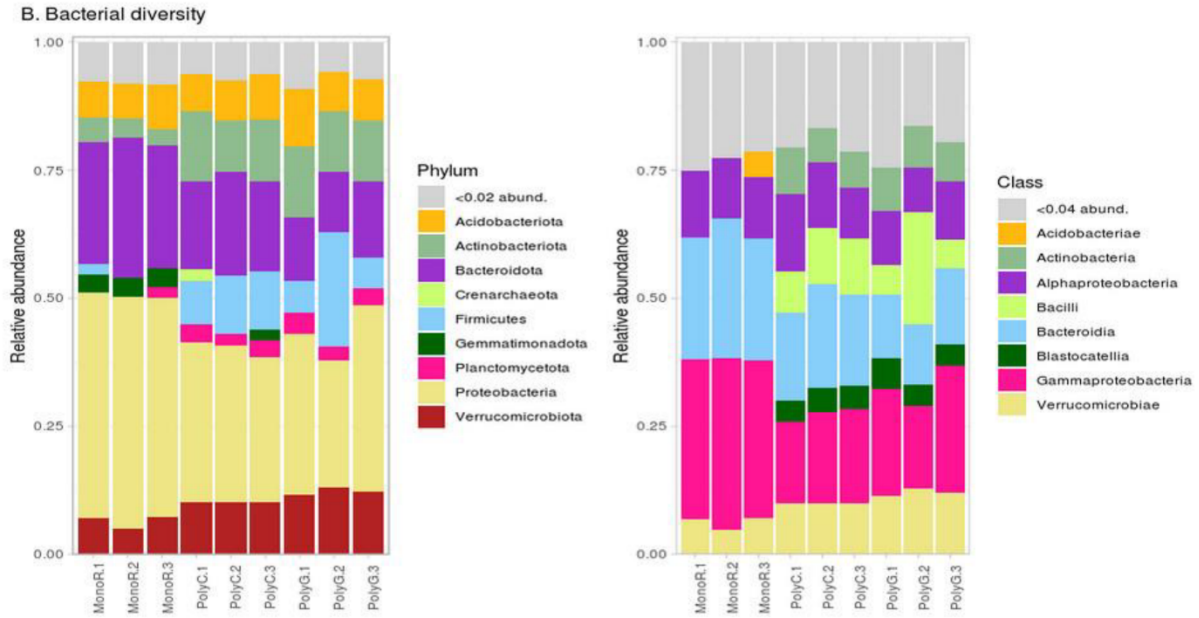


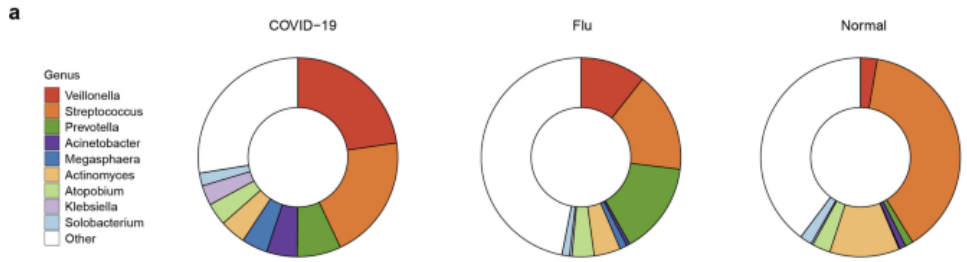


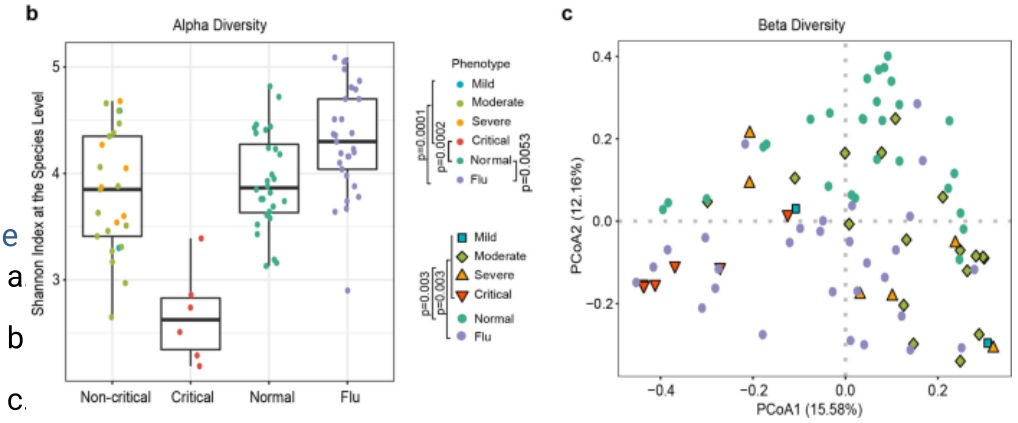
NGS & WGS Analysis (5 – 6 jt)

a. Alpha, Beta analysis
b. Profil microbiome
c. Core microbiome
d. Biomarker microbiome analysis
e. Genomic Island analysis
f. Pan-genome analysis

https://www.nature.com/articles/s41392-021-00614-3
https://www.mdpi.com/2076-2607/9/11/2339







Epitope

a.

b

c.

d. Surface probability

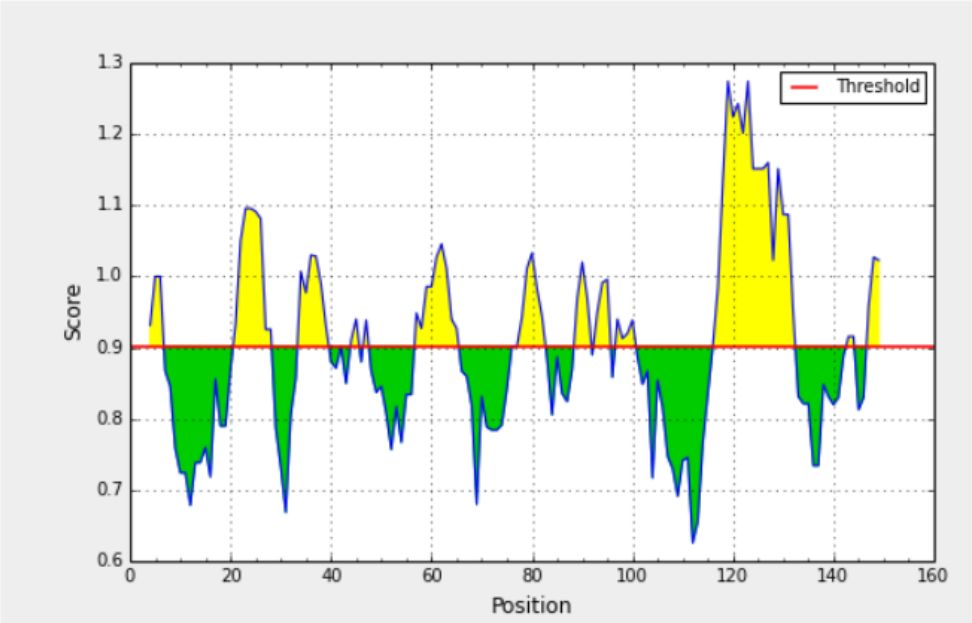
e. Epitope B Cell

f. Epitope T Cell

Input Sequences

```
  1 VLSEGEWQLV LHVWAKVEAD VAGHGQDILI RLFKSHPETL EKFDRFKHLK TEAEMKASED
 61 LKKHGVTVLT ALGAILKKKG HHEAELKPLA QSHATKHKIP IKYLEFISEA IIHVLHSRHP
121 GNFGADAGGA MNKALELFRK DIAAKYKELG YQG
```

Center position: 4 **Window size:** 7 **Threshold:** 0.902 Recalculate



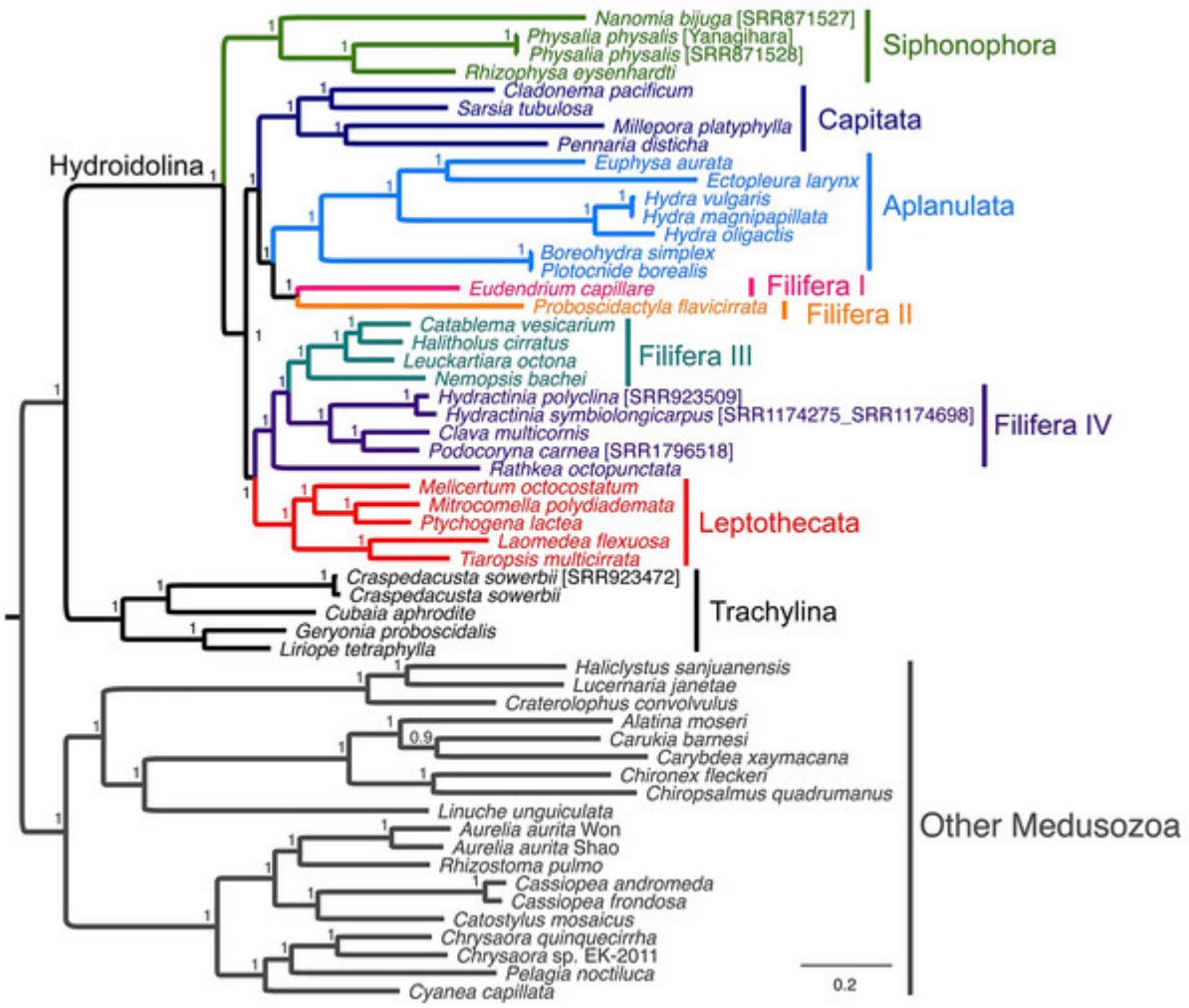
Average: 0.902 **Minimum:** 0.626 **Maximum:** 1.274

Position	Residue	Start	End	Peptide	Score
4	E	1	7	VLSEGEW	0.9314
5	G	2	8	LSEGEWQ	1.0000
6	E	3	9	SEGEWQL	1.0000
7	W	4	10	EGEWQLV	0.8671
8	Q	5	11	GEWQLVL	0.8457

Sanger Result Analysis (500rb – 1 jt)

a. Quality Control dan Trimming
b. Alignment
c. Identifikasi organisme
d. Konstruksi kekerabatan filogenetik
e. Kalkulasi jarak genetic

https://peerj.com/articles/1403/


Nanomia bijuga [SRR871527]
Physalia physalis [Yanagihara]
Physalia physalis [SRR871528]
Rhizophysa eysenhardti
Siphonophora
Cladonema pacificum
Sarsia tubulosa
Millepora platyphylla
Pennaria disticha
Capitata
Hydroidolina
Euphysa aurata
Ectopleura larynx
Hydra vulgaris
Hydra magnipapillata
Hydra oligactis
Boreohydra simplex
Plotocnide borealis
Aplanulata
Eudendrium capillare
Filifera I
Proboscidactyla flavicirrata
Filifera II
Catablema vesicarium
Halitholus cirratus
Leuckartiara octona
Nemopsis bachei
Filifera III
Hydractinia polyclina [SRR923509]
Hydractinia symbiolongicarpus [SRR1174275_SRR1174698]
Clava multicornis
Podocoryna carnea [SRR1796518]
Rathkea octopunctata
Filifera IV
Melicertum octocostatum
Mitrocomella polydiademata
Ptychogena lactea
Laomedea flexuosa
Tiaropsis multicirrata
Leptothecata
Craspedacusta sowerbii [SRR923472]
Craspedacusta sowerbii
Cubaia aphrodite
Geryonia proboscidalis
Liriope tetraphylla
Trachylina
Haliclystus sanjuanensis
Lucernaria janetae
Craterolophus convolvulus
Alatina moseri
Carukia barnesi
Carybdea xaymacana
Chironex fleckeri
Chiropsalmus quadrumanus
Linuche unguiculata
Aurelia aurita Won
Aurelia aurita Shao
Rhizostoma pulmo
Cassiopea andromeda
Cassiopea frondosa
Catostylus mosaicus
Chrysaora quinquecirrha
Chrysaora sp. EK-2011
Pelagia noctiluca
Cyanea capillata
Other Medusozoa
0.9
0.2