**Supplementary Table S5** Top BLAST-p results of *mrjp2* gene sequences of *Apis mellifera* and *Apis cerana javana* from Indonesia.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Sample ID** | **Top 1 BLAST-P** | ***Query cover***  **(%)** | ***E-value* (%)** | ***Identity* (%)** | **Accesion Number** |
| 1 | H\_Am1\_Bdw | MRJP2 Precursor *Apis mellifera* | 100% | 3e-76 | 98.21% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z08CZ53T013) |
| 2 | B\_Am1\_Bdw 1 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z081EGDK013) |
| 3 | B\_Am1\_Bdw 2 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z07THF5X013) |
| 4 | H\_Am2\_Bdw | MRJP2 Precursor *Apis mellifera* | 100% | 2e-74 | 98.21% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z086ZV1P013) |
| 5 | B\_Am2\_Bdw 1 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z086B13U013) |
| 6 | B\_Am2\_Bdw 2 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z07THF5X013) |
| 7 | H\_Am1\_Btl | MRJP7 Precursor *Apis mellifera* | 100% | 2e-69 | 91.07% | [NP\_001014429.1](https://www.ncbi.nlm.nih.gov/protein/NP_001014429.1?report=genbank&log$=prottop&blast_rank=1&RID=Z05XE5AS013) |
| 8 | B\_Am1\_Btl 1 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z07Y38VB013) |
| 9 | B\_Am1\_Btl 2 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0682JVB013) |
| 10 | H\_Am2\_Btl | MRJP7 Precursor *Apis mellifera* | 100% | 1e-71 | 95.54% | [NP\_001014429.1](https://www.ncbi.nlm.nih.gov/protein/NP_001014429.1?report=genbank&log$=prottop&blast_rank=1&RID=Z07GP8BZ013) |
| 11 | B\_Am2\_Btl 1 | Mrjp2 precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z063R9MP016) |
| 12 | B\_Am2\_Btl 2 | MRJP2 Precursor *Apis mellifera* | 100% | 1e-77 | 100.00% | [NP\_001011580.1](https://www.ncbi.nlm.nih.gov/protein/NP_001011580.1?report=genbank&log$=prottop&blast_rank=1&RID=Z083VP7Y016) |
| 13 | H\_Ac1\_Bgr | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z08UD1UZ016) |
| 14 | B\_Ac1\_Bgr 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09APYDH013) |
| 15 | H\_Ac1\_Pti | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0AD1AHG013) |
| 16 | B\_Ac1\_Pti 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09T1SRG016) |
| 17 | B\_Ac1\_Pti 2 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z093YMJ2013) |
| 18 | H\_Ac2\_Pti | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z08V6X3C016) |
| 19 | B\_Ac2\_Pti 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0A79UKD013) |
| 20 | B\_Ac2\_Pti 2 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0A0SJZ7013) |
| 21 | H\_Ac1\_GKd | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0A1ZKDX013) |
| 22 | B\_Ac1\_GKd 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09NB4T1013) |
| 23 | B\_Ac1\_GKd 2 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09XFHFP013) |
| 24 | H\_Ac2\_GKd | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0A8A9WY016) |
| 25 | B\_Ac2\_GKd 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09M9GMJ016) |
| 26 | B\_Ac2\_GKd 2 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z091FZ0U013) |
| 27 | H\_Ac1\_Btl | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09Y43C6013) |
| 28 | B\_Ac1\_Btl 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09G98JB016) |
| 29 | B\_Ac1\_Btl 2 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09EC7HR013) |
| 30 | H\_Ac2\_Btl | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z0BP9F8A013) |
| 31 | B\_Ac2\_Btl 1 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z08Z0PGT016) |
| 32 | B\_Ac2\_Btl 2 | MRJP2 *Apis cerana* | 100% | 5e-76 | 99.11% | [XP\_016911094.1](https://www.ncbi.nlm.nih.gov/protein/XP_016911094.1?report=genbank&log$=prottop&blast_rank=1&RID=Z09S7ACJ013) |