

Recombinant Apis Mellifera MRJP1 Protein (20-432 aa), His-tagged

Cat. No. MRJP1-1642A **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Apis Mellifera (Honeybee) MRJP1 Protein (20-432 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Protein Description: Full Length of Mature Protein.
Species	Honey bee
Source	Yeast
ProteinLength	20-432 aa
Description	Major royal jelly protein 1: induces the differentiation of honeybee larvae into queens through an Egfr-mediated signaling pathway. Promotes body size increase by activating p70 S6 kinase, stimulates ovary development by augmenting the titer of vitellogenin (Vg) and juvenile hormone, and reduces developmental time by increasing the activity of mitogen-activated protein kinase and inducing the 20-hydroxyecdysone protein (20E). Most abundant protein found in the royal jelly which is the food of the queen honey bee larva. The royal jelly determines the development of the young larvae and is responsible for the high reproductive ability of the honeybee queen. Jellein-1: has antibacterial activity against the Gram-positive bacteria <i>S.aureus</i> ATCC 6535, <i>S.saprophyticus</i> and <i>B.subtilis</i> CCT2471, and the Gram-negative bacteria <i>E.coli</i> CCT1371, <i>E.cloacae</i> ATCC 23355, <i>K.pneumoniae</i> ATCC 13883 and <i>P.aeruginosa</i> ATCC 27853, and antifungal activity against <i>C.albicans</i> . Lack cytolytic activity and does not induce rat peritoneal mast cell

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degranulation. Jellein-2: has antibacterial activity against the Gram-positive bacteria *S.aureus* ATCC 6535, *S.saprophyticus* and *B.subtilis* CCT2471, and the Gram-negative bacteria *E.coli* CCT1371, *E.cloacae* ATCC 23355, *K.pneumoniae* ATCC 13883 and *P.aeruginosa* ATCC 27853, and antifungal activity against *C.albicans*. Lack cytolytic activity and does not induce rat peritoneal mast cell degranulation. Jellein-4: lacks antibacterial and antifungal activity. Lacks cytolytic activity and does not induce rat peritoneal mast cell degranulation.

Form	Tris-based buffer, 50% glycerol
Molecular Mass	48.9 kDa
AA Sequence	NILRGESLNKSLPILHEWKFFDYDFGSDERRQDAILSGEYDYKNNYPSDIDQWHDKIF VTMLRYNGVPSSLNVISKKVGDDGGLLPYPDWSEFAKYDDCSGIVSASKLAIDKCDR LWVLDSGLVNNTQPMCSPKLLTFDLTTSQLLKQVEIPHDVAVNATTGKGRLSSLAVQ SLDCNTNSDTMVYIADEKGEGLIVYHNSDDSFHRLTSNTFDYDPKFTKMTIDGESYT AQDGISGMALSPMTNNLYYSPVASTSLYYVNTEQFRTSDYQQNDIHYEGVQNILDTQ SSAKVVS KSGVLFFGLVGDSALGCWNEHRTLERNHIRTVAQSDETLQMIASMKIKEA LPHVPIFDRIYINREYILVLSNKMQKMNNDNFDDVNFNFRIMNANVNELILNTRCENPD NDRTPFKISIH
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
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 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.

Concentration A hardcopy of COA with reconstitution instruction is sent along with the products.

GENE INFORMATION

Gene Name Mrjp1 major royal jelly protein 1 [Apis mellifera (honey bee)]

Official Symbol MRJP1

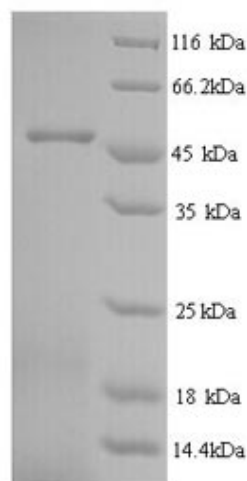
Synonyms GB14888; p56kP-4;

Gene ID 406090

mRNA Refseq NM_001011579

Protein Refseq NP_001011579

UniProt ID O18330



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

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