



# Recombinant Apis mellifera Major royal jelly protein 1 (MRJP1)

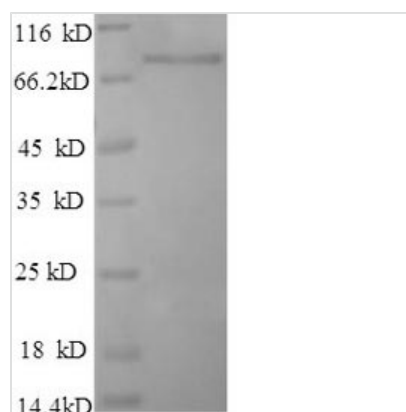
<b>Product Code</b>	CSB-EP522725DNK
<b>Relevance</b>	<p>Major royal jelly protein 1: induces the differentiation of honeybee larvae into queens through an Egfr-mediated signaling pathway. Promotes body size increase by activating p70 S6 kinase, stimulates ovary development by augmenting the titer of 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 degranulation. Jellein-2: 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 degranulation. Jellein-4: lacks antibacterial and antifungal activity. Lacks cytolytic activity and does not induce rat peritoneal mast cell degranulation.</p>
<b>Abbreviation</b>	Recombinant Apis mellifera MRJP1 protein
<b>Storage</b>	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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	O18330
<b>Alias</b>	56-kDa protein 4 ;p56kP-4Bee-milk proteinRoyalactin
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Apis mellifera (Honeybee)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	<p>NILRGESLNKSLPILHEWKFFDYDFGSDERRQDAILSGEYDYKNNYPSDIDQW  HDKIFVTMLRYNGVPSSSLNVISKKVGDDGGLLPYPDPWSFAKYDDDCSGIVSAS  KLAIKCDRLWVLDSGLVNNTQPMCSPLKLLTFDLTTSQLLKQVEIPHDVAVNAT  TGKGRSSLAVQSLDCNTNSDTMVYIADEKGEGLIVYHNSDDSFHRLTSNTFD  YDPKFTKMTIDGESYTAQDGISGMALSPMTNNLYYSPVASTSLYYVNTEQFRT  SDYQQNDIHYEGVQNILDTSQSSAKVVSKSGVLFFGLVGDSALGCWNEHRTLE  RHNIRTVAQSDETLQMIASMKIKEALPHVPIFDRIYINREYILVLSNKMQKMNND</p>



FNFDDVNFRIMNANVNELILNTRCENPDNDRTPFKISIH

<b>Research Area</b>	Others
<b>Source</b>	E.coli
<b>Target Names</b>	MRJP1
<b>Expression Region</b>	20-432aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal GST-tagged
<b>Mol. Weight</b>	73.9kDa
<b>Protein Length</b>	Full Length of Mature Protein

#### Image



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

#### Description

Discover the potential of recombinant *Apis mellifera* (Honeybee) MRJP1 protein in your research endeavors. This full-length mature Major royal jelly protein 1 (MRJP-1) is derived from the 20-432aa expression region and has been produced in *E.coli*. With an N-terminal GST tag for streamlined purification, the MRJP1 protein provides a high level of purity, exceeding 90% as verified by SDS-PAGE. The lyophilized powder format guarantees long-term stability and convenient application across various experimental settings, making it a valuable addition to your research toolkit.

#### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

#### Shelf Life

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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.