

Product datasheet

Recombinant Major Royal Jelly protein 1 (His tag) ab241437

[1 Image](#)

Description

Product name Recombinant Major Royal Jelly protein 1 (His tag)

Purity > 90 % SDS-PAGE.

Expression system Yeast

Accession [O18330](#)

Protein length Full length protein

Animal free No

Nature Recombinant

Sequence

```
NILRGESLNKSLPILHEWKFFDYDFGSDERRQDAILSGEYD
YKNNYPSDI
DQWHDKIFVTMLRYNGVPSSLNVISKKVGDDGPLLQPYPD
WSFAKYDDCS
GVSASKLAIDKCDRLWVLD SGLVNNTQPM CSPKLLTFDL
TTSQLLKQVE
IPHDVAVNATTGKGR LSSLAVQSLDCNTNSDTMVYADEK
GGLVYHNS
DDSFHRLTSNTFDYDPKF TKMTIDGESYTAQD GISGMALS
PMTNNLYSP
VASTSLYYNTEQFRTSDYQQNDIHYEGVQNILDTQSSAKV
VSKSGVLFF
GLVGDSALGCWNEHRTL ERHNIRTVAQSDETLQMIASMKI
KEALPHVPIF
DRYINREYILVLSNKMQKMV NDNFNDDVNFRIMNANVNEL
ILNTRCENP DNDRTPFKISHL
```

Predicted molecular weight 49 kDa including tags

Amino acids 20 to 432

Tags His tag N-Terminus

Additional sequence information Full length mature chain without signal peptide. Apis mellifera (Honeybee)

Specifications

Our **Abpromise guarantee** covers the use of **ab241437** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.2

Constituents: Tris buffer, 50% Glycerol (glycerin, glycerine)

General Info

Function 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 *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-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.

Tissue specificity Found in the hypopharyngeal glands of the worker honeybee.

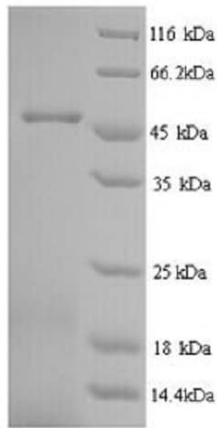
Sequence similarities Belongs to the major royal jelly protein family.

Developmental stage Produced in the cephalic glands of both the nurse bee and the forager bee. This bee milk protein changes to alpha-glucosidase in accordance with the age-dependent role change of the worker bee.

Post-translational modifications Glycosylated.
Jellein-2 is probably processed to yield jellein-1 and jellein-4.

Cellular localization Secreted.

Images



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel analysis of ab241437.

SDS-PAGE - Recombinant Major Royal Jelly protein
1 (His tag) (ab241437)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors