

## IDENTIFICATION

**Species:** *Helianthus annuus*

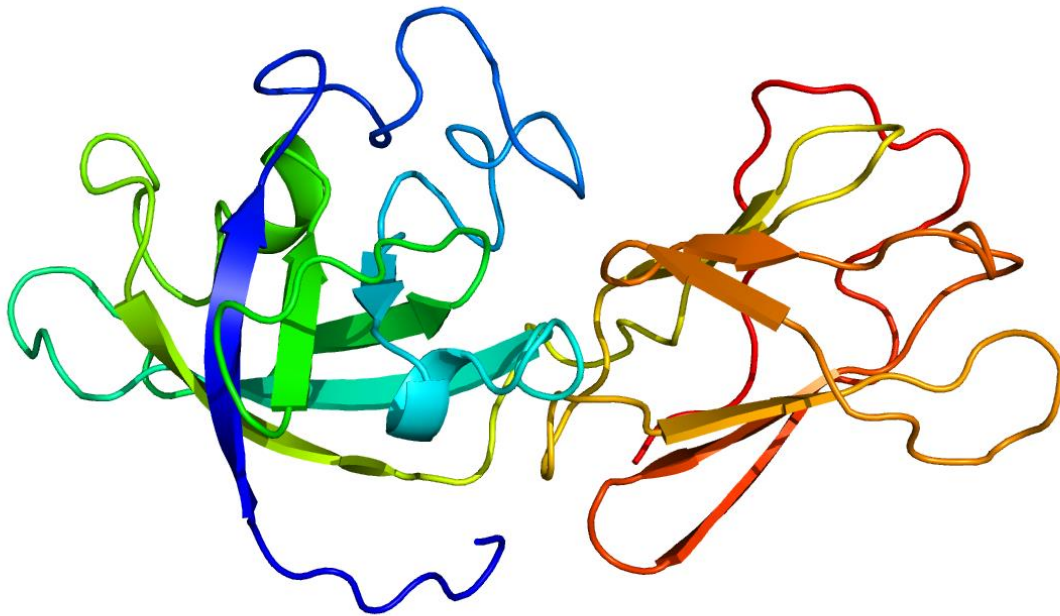
**Locus:** HanXRQChr07g0201381

**Gene Model:** HanXRQChr07g0201381

**Description:** HanEXPA-07

**Family:** Alpha Expansin

**3D structure:**



## GENOME DATABASES

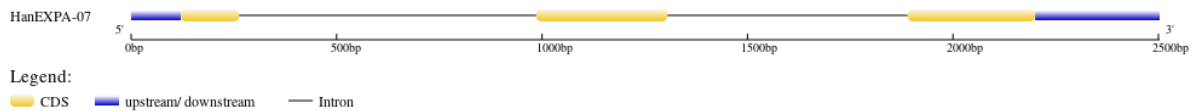
Phytozome: [https://phytozome-next.jgi.doe.gov/info/Hannuus\\_r1\\_2](https://phytozome-next.jgi.doe.gov/info/Hannuus_r1_2)

KEGG: <https://www.genome.jp/entry/T05101>

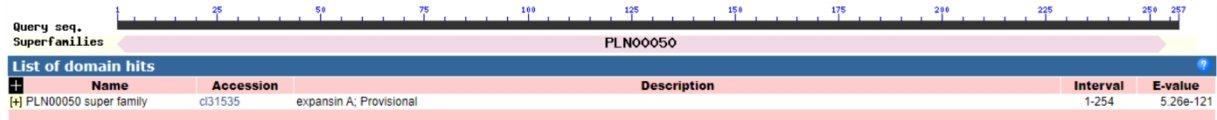
## EXTERNAL RESOURCES

<https://www.heliagene.org/>

## GENE STRUCTURE



## DOMAIN ARCHITECTURE



## SEQUENCES

### Peptide

>HanEXPA-07

MELRGYVVIFCAVLTAVNARIPGVYTGQWESAHATFYGGNDASGTMGGACGYGN  
LYSQGYGVNTAALSTALFNGLSCGACFELKCVNDPQWCHPGSPSIFITATNFCPPNF  
AQPSDNGGWCNPPRTHFDLAMPMLKIAQYRAGIVPVSYRRVPCRKQGGIRFTINGF  
RYFNLVLITNVAGAGDITQAWVKGSRTTEWMSLSRNWQNWQSNVAVLVGQSLFRV  
RGS DRRTSTSWNIVPADWKFGQTF TGKNFRV\*

### CDS (coding sequence)

>HanEXPA-07

ATGGAGCTCAGGGGTTATGTGGTCATTTTTTGTGCGGTTTTGACCGCGGTCAATGC  
TCGTATTCCCGGAGTTTACACCGGAGGCCAGTGGGAGAGTGCTCATGCCACCTTC  
TACGGTGGCAATGATGCGTCCGGTACCATGGGAGGAGCATGTGGGTACGGTAATT  
TGACAGCCAAGGCTATGGCGTCAACACCGCAGCGCTCAGCACTGCGCTGTTCAA  
CAACGGGCTGAGCTGCGGTGCTTGTTCGAGTTAAAGTGTGTGAATGACCCGCAG  
TGGTGCCATCCAGGCAGCCCGTCGATTTTCATCACGGCCACGAATTTTTGTCCGC  
TAACTTTGCCCAACCGAGTGATAATGGCGGGTGGTGCAACCCGCCACGAACCCAT  
TTCGACCTCGCCATGCCTATGTTTCTCAAGATTGCGCAATATCGTGCTGGCATAGT  
TCCCGTCTCTTACCGCCGGGTCCCATGCCGAAAGCAAGGCGGGATAAGATTCACC  
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GGGACATAACGCAAGCGTGGGTGAAAGTTCAAGGACCGAATGGATGAGTCTTA  
GCCGCAACTGGGGTCAAACTGGCAATCAAATGCGGTAATCGTTGGTCAATCACT  
TTCTTTTAGAGTCAGAGGCAGTGATCGTCGCACTTCCACCTCATGGAACATCGTCC  
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### Nucleotide

>HanEXPA-07

TTTCAAGTAATATAAGATTCCTCAACTGTATTCTCTCTCCTCATTGGACACAATAA  
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GGTCAATGCTCGTATTCCCGGAGTTTACACCGGAGGCCAGTGGGAGAGTGCTCAT  
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