

IDENTIFICATION

Species: *Helianthus annuus*

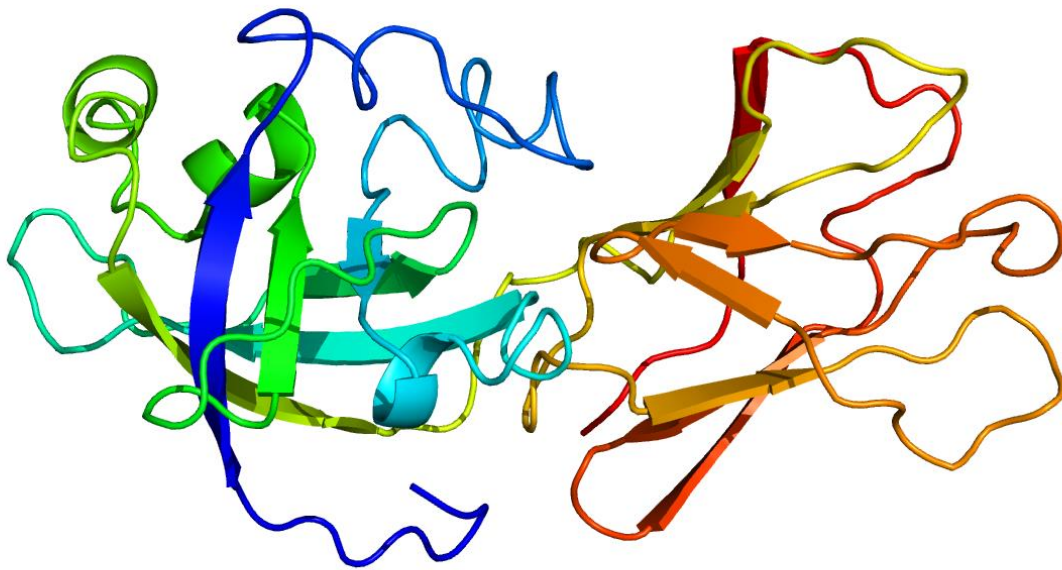
Locus: HanXRQChr14g0456441

Gene Model: HanXRQChr14g0456441

Description: HanEXPB-03

Family: Beta Expansin

3D structure:



GENOME DATABASES

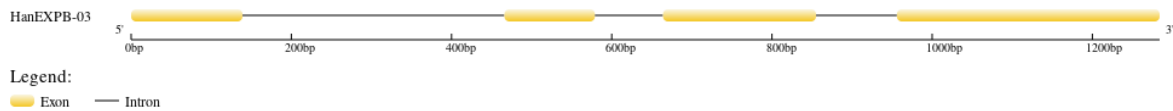
Phytozome: https://phytozome-next.jgi.doe.gov/info/Hannuus_r1_2

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

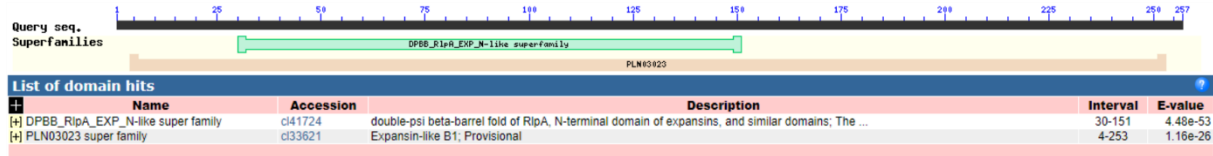
EXTERNAL RESOURCES

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

GENE STRUCTURE



DOMAIN ARCHITECTURE



SEQUENCES

Peptide

>HanEXPB-03

MALHVENFLLIFVLISSHMLLAKTNELEGFSPALATWYGEPTYGAGSGGGCGWSDDV
QFPFSAAMIAAGNANIYLKKGKGCNCYEILCTRVPYCSTIPITVTITDECPGACNDVPF
AFDLSGTAFGAMSSPGQADALRNLGRVDVQYRRVPCNYGSTKIAFKIDAMANPYWF
AMTIEFCAGDGGGLSSVGVASDGSQQFRLMKNIWGAVWAVDVPDFRGPYSFKLISQI
DEPVIATNAVPSDFVPGQSYYSLVNFRS*

CDS (coding sequence)

>HanEXPB-03

ATGGCTTTACACGTTGAAAACCTTCTTGTTGATCTTTGTTTTGATCTCTTCCCATATG
CTCCTTGCTAAACTAACGAGCTAGAAGGGTTTTTCGCCGGCTTTGGCAACTTGGT
ACGGAGAGCCATATGGAGCTGGAAGTGGAGGAGGTTGTGGATGGTCCGACGACG
TTCAATTTCCGCCATTCTCTGCTATGATAGCAGCAGGAAATGCAAATATATATTTG
AAAGGCAAAGGGTGTGGAAATTGTTATGAGATTTTATGCACCCGAGTCCCATATT
GCTCAACGATCCCCATTACAGTGACCATAACTGATGAGTGTCTTGGCGCATGTAA
CGATGTGCCATTCGCTTTTGAATTAAGTGAACCGCTTTTGGTGCAATGTCAAGTC
CAGGACAAGCTGATGCTCTACGTAATCTTGGTCGCGTTGATGTCCAATATCGAAG
GGTGCCTTGCAACTACGGTAGTACCAAATCGCGTTCAAGATAGATGCAATGGCG
AATCCTTACTGGTTCGCGATGACAATAGAGTTTTGTGCAGGAGATGGTGGCCTTA
GCTCGGTAGGGGTGGCATCAGATGGTTCACAACAGTTTAGATTGATGAAGAACAT
ATGGGGTGCGGTTTGGGCAGTGGATGTTGACCCATCTTTCCGTGGTCCATATTCGT
TCAAACCTCATCTCTCAAATCGATGAACCAGTTATCGCAACCAACGCAGTACCGTC
TGATTTTGTGCCAGGACAAAGTTATTACTCGTTGGTGAATTTTCGAAGCTAG

Nucleotide

>HanEXPB-03

ATGGCTTTACACGTTGAAAACCTTCTTGTTGATCTTTGTTTTGATCTCTTCCCATATG
CTCCTTGCTAAACTAACGAGCTAGAAGGGTTTTTCGCCGGCTTTGGCAACTTGGT
ACGGAGAGCCATATGGAGCTGGAAGTGGTAATTTAATATCTACTTAGCTTATTAT
GCATACCTATAGACTCTGGCGGAATCTAGGGGTTAAGAGGGTCCACAACCCTCAG
TCACCAGAATTTGTTGGATTTTATATATAAAATCTGACTTTAAATAAAGAACAA

GAGTTGGATCCCCTAGTTGAAATTGGTACCGACTAGAACCTTAGGATGACCTCTA
ACTAAAAAGTTTTTGTTCGCTACCATGGAGACTTAGACATGTACACTCATATAC
ATATAAACTTATGTCTAAGAGGTATTAAGCTCTATGGTACCAATCGAGTCTTCAC
GACCTCTATTTCTTGACTATGCAGGAGGAGGTTGTGGATGGTCCGACGACGTTCA
ATTTCCGCCATTCTCTGCTATGATAGCAGCAGGAAATGCAAATATATATTTGAAA
GGCAAAGGGTGTGGAAATTGTTATGAGGTAATTAATGTACATTGTACATGTTTCC
AACTAACTAACATCATTTTTATTA AAACTTTTGTTCATTGTCATTACTACTTCAG
ATTTTATGCACCCGAGTCCCATATTGCTCAACGATCCCCATTACAGTGACCATAAC
TGATGAGTGTCCCTGGCGCATGTAACGATGTGCCATTTCGCTTTTGATTTAAGTGGA
ACCGCTTTTGGTGCAATGTCAAGTCCAGGACAAGCTGATGCTCTACGTAATCTTG
GTCGCGTTGATGTCCAATATCGAAGGTTTCATATTA AAAATATGCGAAA ACTTTAAA
GCTAATGTTCTATAATGTAGAATTTTCAATTTGACATATTTAGTTACATCTTTGAA
TTGGTGTATGTCTAGGGTGCCTTGCAACTACGGTAGTACCAAATCGCGTTCAAG
ATAGATGCAATGGCGAATCCTTACTGGTTCGCGATGACAATAGAGTTTTGTGCAG
GAGATGGTGGCCTTAGCTCGGTAGGGGTGGCATCAGATGGTTCACAACAGTTTAG
ATTGATGAAGAACATATGGGGTGC GGTTTGGGCAGTGGATGTTGACCCATCTTTC
CGTGGTCCATATTCGTTCAA ACTCATCTCTCAAATCGATGAACCAGTTATCGCAAC
CAACGCAGTACCGTCTGATTTTGTGCCAGGACAAAGTTATTACTCGTTGGTGAAT
TTTCGAAGCTAG