

S3 Text : Putative nuclear localization signals (NLS) of NbUBC2, NbHUB1 and Rep proteins.

Predicted putative NLS in NbHUB1 protein

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MENLLPLDTAVLLHQNQKLSQKLEAQKIEI AVLLEEKFTELRDKQKPYDNT 50
LSAIQKSWEELVGELEICSTRTEDPIRHGNASNDQSCAEDGSVYACDDSF 100
LSLLLQGTGATGSSSDVNTQTEYEQKKMDDQKIVKIFRNIVSTVDNVRQMK 150
DKLCAAVLEVLPELGDGSLQKSLSDLHVGKNIQTINELHLKHRSLAGAL 200
QNHRDRTDAKNKAELKCLRGELEKTI AHLDES NRKLA I LKAEK DAAKGVLF 250
PVLNLGNKHSANDKARDKQRDMQDMESTLKEYLDQSSF RLFELKRLHEER 300
IDILKQLSNLQNKLNKAI CSSQPYILVKDQLAKAKEDLSLYQSLYEKL 350
QVEKDNLSWREKEMNLKNDITDVFRRSSTIADSR IAWLEKEMQKHMQERN 400
MIEGKLEEASREPGRKEIIAEFKKLVSSFPETMGDMQNQLSNYKETASDV 450
HSLRTDVQSLSSILDRKSKEIEALS AKSASQVTEMLKLQAVVNDLKESDM 500
HLKLI LEMYTRESAFSRDVF EARSSEYRAWARVQSLKTSLDEHNLEVRVK 550
SAIEAEADSQQKLGAAEAEIAELRQKLDASKRERSRLSEVLKSKHEE TEA 600
YLSEIETIGQAYDDMQAQNQQLFQQITERDDYNIKLVLEGVRRARQQRDCL 650
AWESQITERAVEDANTMVSSYEMKAAKID DQLRGCSDLIQKLAEDRGQNS 700
LALENTQKRFLDVRKSSQQLRETLEEWQSKIDEV RVDLAQLQIELEKERF 750
ERKRAEEDVEALRRKTSRLRSHIEGSSVIEK LQQKLREYKEILNCSICFD 800
RRKEVVLAKCYHLFCNPCIQKIVETRHRKCPVCSASFGANDVKAVYI 847
    
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Predicted bipartite NLS		
Pos.	Sequence	Score
289	RLFELKRLHEERIDILKQLSNLQNKLNKAI	7.4
704	ENTQKRFLDVRKSSQQLRETLEEWQSKIDEV	5.1

NbUBC2 lacks putative NLS sequence

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MSTPARKRLMRDFKRLQQDPPAGISGAPYDNNIMLWNAVIFGPDDTPWDG 50
GTFKLTLOFSEDYPNKPTVRFISRMFHPNIYADGSICLDILQNWSP IY 100
DVAAILTSIQSLLCDPNPNSPANSEAARMFSENKREYNRKVREIVEQSWT 150
AD 152
    
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Predicted putative NLS sequence in ChiLCV Rep protein

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MPRAGR FNINAKNYFLTYPNCSLTKEEALSQ LQNLETPVNKLFIRVCREL 50
HENREPHLHVLVQFEGKYQCTNNRFFDLISPTRSAHFHPNIQRAKSSSDV 100
KAYVEKDGDFIDFGVFQIDGRSARGGCQSANDAYAEA INSGSKSSALNIL 150
REKAPKDYVLQFHNLNANLDRI FT PPLEVYVSPFSSSSFDQVP EELEEWA 200
AENVLGAAARPLRPM SIVIEGESRTGKT IWARSLGPHNYLCGHL DLSPKV 250
YSNDAWYNVIDDVPHYLKHFK E FMGAQRDQWQSN TKYGKPVQIKGGIPAI 300
FLCNP GPNSSYKEFLDEEKNSALRNWALKNATFITLEGPLYSGSNQSAAQ 350
ASQEGDQASTR 361
    
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Predicted bipartite NLS		
Pos.	Sequence	Score
245	DLSPKVYSNDAWYNVIDDVPHYLKHFK E	5