

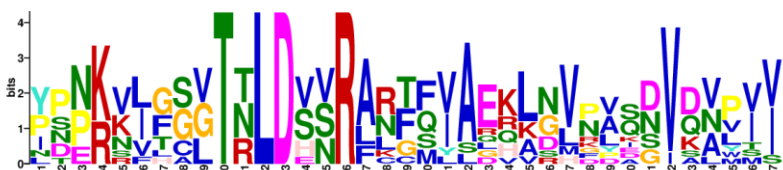









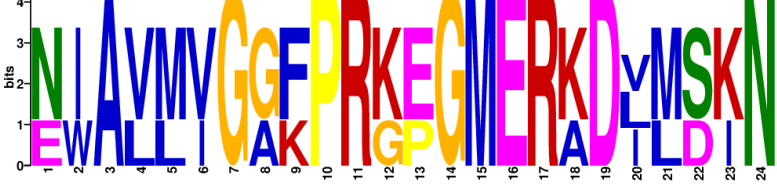






**TABLE S3**|Putative motifs identified from CIMDH proteins using MEME.

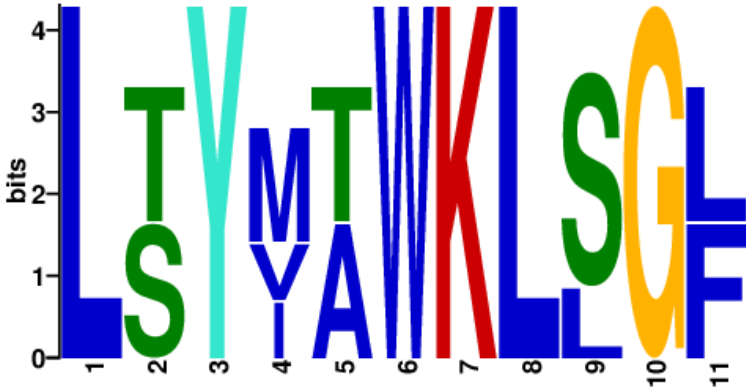


The sequence logos were generated using WebLogo.

Motif name	Sequence logo	Frequency	Width	e-value
Motif 1	 <p>VIIPAGVPRKPGETRDDLFNINAGJVKSJVPAAVAKHSPNALLNVISNPVB</p>	0.750	50	4.10E-158
Motif 2	 <p>VEAKAGKGSATLSMAYAAARFAESCLRNL</p>	0.750	29	6.80E-71
Motif 3	 <p>YPNKVJGSVTTLDSSRARTFIAEKLNVNVSVDVDVPII</p>	0.917	37	7.30E-73
Motif 4	 <p>LGAAGGIGQPLSLLIKQTQPLVSELNLYDI</p>	0.583	29	2.00E-36

Motif 5	 <p>VQSEITELPFFASKVRLGKGG</p>	0.667	21	2.80E-33
Motif 6	 <p>SEYEQKGLEALKPELKASIEKGIAFASE</p>	0.417	28	2.60E-29
Motif 7	 <p>LRGVAADLSHAATPLPRTVIMGSDELEVS</p>	0.833	29	8.80E-27
Motif 8	 <p>GHAGITILPLWSKASPGGTPT</p>	0.583	21	6.40E-19
Motif 9		0.333	20	9.00E-13

	 <p>QIPYEPHPLEAJHQGVINSA</p>			
Motif 10	 <p>WGNHSSSQYPDVNHAVVETEAGEKPVQRQ</p>	0.250	28	2.70E-10
Motif 11	 <p>STVPIAAEVLKKAGV</p>	0.417	15	5.20E-10
Motif 12	 <p>RRIHPVSVLAK</p>	0.333	11	1.30E-08
Motif 13	 <p>NIAVMVGGFPRKEGMRKDYMSKN</p>	0.250	24	1.70E-07

<p>Motif 14</p>	 <p>WLDGEFITTVQKRGAAIKARKLSSALSVASAACDH</p>	<p>0.250</p>	<p>36</p>	<p>2.50E-07</p>
<p>Motif 15</p>	 <p>MEKGKRSVSSGDLGIDIAGSFFKPIQGAGPLSPSGRNTKIT</p>	<p>0.250</p>	<p>41</p>	<p>3.40E-07</p>
<p>Motif 16</p>	 <p>DGDPDVVECSY</p>	<p>0.333</p>	<p>11</p>	<p>6.00E-06</p>
<p>Motif 17</p>	 <p>EELTRIQNGTE</p>	<p>0.333</p>	<p>15</p>	<p>2.30E-05</p>

	EIEPLTVRIQNGGTE			
Motif 18	 <p>LSYMAWKLSGF</p>	0.333	11	2.90E-05
Motif 19	 <p>NIHLTEEETHRLKNSARAILDVQKQL</p>	0.250	26	7.50E-05
Motif 20	 <p>GYALVPMIARGIMLGIDQPVLHMLDI</p>	0.167	27	1.50E-04