

hemoglobin_subunit_delta	.....MVLTPPEEKSAVTSLWGKVN..VEDAGGEGALGRLLVVYPWTQRF	43
hemoglobin_subunit_beta	.....MVLTPPEEKSAVTSLWGKVN..VEDEGGALGRLLVVYPWTQRF	43
hemoglobin_subunit_gamma-2	.....MGHFTEEDKATITSLWGKVN..VEDAGGETLGRLLVVYPWTQRF	43
hemoglobin_subunit_gamma-1	.....MGHFTEEDKATITSLWGKVN..VEDAGGETLGRLLVVYPWTQRF	43
hemoglobin_subunit_epsilon	.....MVHFTAEKAAVTSLSKMN..VEEAGGEGALGRLLVVYPWTQRF	43
hemoglobin_subunit_alpha	.....MVLSPADKTNKAAWGKVGAHAGEYGAALERMFLSFPTTKTYF	44
hemoglobin_subunit_theta-1	.....MALSAEDRALVRAIKKLGSNVGVYTTALERTFLAFPATKTYF	44
hemoglobin_subunit_zeta	.....MSLTKTERTIIVSMAKIISTQADTIGTETLERLFLSHPTKTYF	44
hemoglobin_subunit_mu	.....MLSAQERAQIAQVVDLIAGHEAQFGAELLRLFTVYVPSIKVYF	43
cytoglobin	MEKVPGEMEIERRERSEELSEARKAQAAMARLYANCEDVGVAIVRFVNFPSAKQVF	60
myoglobin	.....MGLSDGEGWQLVLNVGKVEADIPGHGQGVILIRLFKGFHPETLEKF	144
neuroglobin	.....MERPEPELIRQSRVAVSRSPLEHGTVLFAERLFALEPDLLPLF	142

hemoglobin_subunit_delta	ESFG.DLSSPDAYMGNPKVKAHGKKVLGAFSDGLAHLDDN...LKGTFSQLSELHCDKLVH	99
hemoglobin_subunit_beta	ESFG.DLSTPDAYMGNPKVKAHGKKVLGAFSDGLAHLDDN...LKGTFTLSELHCDKLVH	99
hemoglobin_subunit_gamma-2	DSFG.NLSSASAIMGNPKVKAHGKKVLTSLGDAIKHLDD...LKGTFAQLSELHCDKLVH	99
hemoglobin_subunit_gamma-1	DSFG.NLSSASAIMGNPKVKAHGKKVLTSLGDATKHLDD...LKGTFAQLSELHCDKLVH	99
hemoglobin_subunit_epsilon	DSFG.NLSSPAILGNPKVKAHGKKVLTSLGDAIKHMDN...LKPAFAKSELHCDKLVH	99
hemoglobin_subunit_alpha	PHF..DLSH....GSAQVKGHGKKVADALTNAAVHVD...MPNALASDLHAHKLVR	94
hemoglobin_subunit_theta-1	SHL..DLSP....GSSQVRAHGQKVADALSLAVERLDD...LPHALASLHLHACLVR	94
hemoglobin_subunit_zeta	PHF..DLHP....GSAQLRAHGSKVVAAVGDAYKSIDD...IGGALSKSELHAYILVR	94
hemoglobin_subunit_mu	PHL..SACQ....DATQLLSSGQRMVAAVGAAVQHVDN...LRAALSPADLHALVLRV	93
cytoglobin	SQFK.HMEDPLEMERSPQLRKHACRVMGALNTVVENLHDPDKVSSVLALVGKAHALKHKV	119
myoglobin	DKFK.HLKSEDEMKASEDLKKKGGATVLTALGGILKKGKH...HEAEIKPLAQSHATKHKI	100
neuroglobin	QYNCRQFSPEPDLCSSEPEFLDITRKVMLVIDAAVTVNDELSSLEEYLASLGRKHR.AVGV	101

hemoglobin_subunit_delta	DPENFRLLGNVLVCLVARNFGKEFTPPQMOAAVYQVVAGVANALAHKYH.....	147
hemoglobin_subunit_beta	DPENFRLLGNVLVCLVAHFFGKEFTPPVQOAAVYQVVAGVANALAHKYH.....	147
hemoglobin_subunit_gamma-2	DPENFKLLGNVLVTVLAIHFGKEFTPEVQASWQKVMVTGVASALSSRYH.....	147
hemoglobin_subunit_gamma-1	DPENFKLLGNVLVTVLAIHFGKEFTPEVQASWQKVMVTAVASALSSRYH.....	147
hemoglobin_subunit_epsilon	DPENFKLLGNVMVILIAHFGKEFTPEVQAAWQKLVSAVAIALAHKYH.....	147
hemoglobin_subunit_alpha	DPVNFLLSHCLVLTAAHLPAEFTPAVHASLDFLASVSTVTSKYR.....	142
hemoglobin_subunit_theta-1	DPASFLLGNHCLVLTARHYPGDFSPALQASLDKFLSHVISAIVSEYR.....	142
hemoglobin_subunit_zeta	DPVNFLLSHCLVLTAAAFPADFTAEEAHAAWDKFLSVSSVTEKYR.....	142
hemoglobin_subunit_mu	DPANFPLLCQCFHVVLAASHLQDEFVQMOAAWQKFLTGAAVVLTEKYR.....	141
cytoglobin	EPVYFKILSGVILEVVAEEFASDFPETORAWAKLRGLYSHVTAAYKEVGWVQVQPNAT	179
myoglobin	PVKYLEFISECITQVLQSKHPGDFGADAQGAAMKALELFRKDMASNKGELGFQG.....	154
neuroglobin	KLSSFTVQESLLYMLEKCLGPAFTPATRAAWSQLYGAIVVQAMSRGWDE.....	151

hemoglobin_subunit_delta	.....	147
hemoglobin_subunit_beta	.....	147
hemoglobin_subunit_gamma-2	.....	147
hemoglobin_subunit_gamma-1	.....	147
hemoglobin_subunit_epsilon	.....	147
hemoglobin_subunit_alpha	.....	142
hemoglobin_subunit_theta-1	.....	142
hemoglobin_subunit_zeta	.....	142
hemoglobin_subunit_mu	.....	141
cytoglobin	TPPATLPSSGP	190
myoglobin	.....	154
neuroglobin	.....	151

  non conserved  
  ≥ 50% conserved  
  all match

Figure 1: Protein MSA with Chemical Similarity Highlighting