

Online Supporting Information S1. This benchmark dataset $\mathbb{S}$ contains 3,681 locative protein sequences (3,106 different proteins), classified into 14 human subcellular locations. Among the 3,106 different proteins, 2,580 belong to one location; 480 to two locations; 43 to three locations and 3 to 4 locations. Both the accession numbers and sequences are given. None of the proteins has $\geq 25\%$ sequence identity to any other in the same subset (subcellular location). See the text of the paper for further explanation.

(1) $\mathbb{S}_1$: 77 centrosome proteins

>Q9Y224

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>Q5JTW2

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>Q13316

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W Q A Y L D Y L R R R V D F K Q D S S K E L E E L R A A F T R A L E Y L K Q E V E E R F N E S G D P S C V I M Q N W A R
I E A R L C N N M Q K A R E L W D S I M T R G N A K Y A N M W L E Y Y N L E R A H G D T Q H C R K A L H R A V Q C T S D
Y P E H V C E V L L T M E R T E G S L E D W D I A V Q K T E T R L A R V N E Q R M K A A E K E A A L V Q Q E E E K A E Q
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>P05120

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>O14512

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(3) $\mathbb{S}_3$: 79 cytoskeleton proteins

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>Q9Y613

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>O95425

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>P11279

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>P13995

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>O95140

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>O15229

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>P12694

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>O43572

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>P30048

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>O15235

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