

## Supplementary Information

The data set employed for PCA analysis of the two proteins included only the amino acid peaks whose characteristic molecular fragment for the two proteins are summarized in Table 1. PCA loadings (not shown here in details) were consistent with the total amino acid composition of Fn and HSA, and allowed to distinguish the proteins on the basis of their overall amino acid composition. Furthermore, Table 1 shows also that the relative amino acid abundances allow to discriminate among the three Fn modules I-III.

**Table 1.** The relative abundance of various amino acids (%) is reported for HSA, and for Fn as well as for each of the three Fn epitopes (Type I, Type II and Type III).

Amino acid	Fragments	HSA	Fn	Fn Type I	Fn Type II	Fn Type III
Ala	C <sub>2</sub> H <sub>6</sub> N	10.34	3.62	1.73	2.00	4.94
Cys	C <sub>2</sub> H <sub>6</sub> NS	5.91	2.96	9.62	8.00	0.14
Asp	C <sub>3</sub> H <sub>6</sub> NO <sub>2</sub>	5.91	5.25	6.54	7.00	4.67
Glu	C <sub>4</sub> H <sub>6</sub> NO; C <sub>4</sub> H <sub>8</sub> NO <sub>2</sub>	10.02	5.30	5.96	4.00	5.99
Phe	C <sub>8</sub> H <sub>10</sub> N; C <sub>9</sub> H <sub>8</sub> O	5.91	2.85	2.31	7.00	1.81
Gly	CH <sub>4</sub> N	2.63	8.25	13.46	8.00	6.41
His	C <sub>4</sub> H <sub>5</sub> N <sub>2</sub> ; C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> ; C <sub>5</sub> H <sub>8</sub> N <sub>3</sub>	2.63	3.03	3.46	4.00	1.32
Ile	C <sub>3</sub> H <sub>12</sub> N	1.48	4.76	3.65	0.00	5.78
Lys	C <sub>5</sub> H <sub>10</sub> N	9.85	3.18	4.62	3.00	3.20
Leu	C <sub>5</sub> H <sub>12</sub> N	10.51	5.50	3.27	4.00	6.20
Met	C <sub>2</sub> H <sub>5</sub> S	1.15	1.20	2.69	2.00	0.49
Asn	C <sub>3</sub> H <sub>4</sub> NO; C <sub>3</sub> H <sub>7</sub> N <sub>2</sub> O; C <sub>3</sub> H <sub>6</sub> NO <sub>2</sub> ; C <sub>4</sub> H <sub>4</sub> NO <sub>2</sub>	2.79	4.61	4.62	9.00	3.62
Pro	C <sub>4</sub> H <sub>6</sub> N; C <sub>4</sub> H <sub>8</sub> N	3.94	8.58	1.92	4.00	9.54
Gln	C <sub>4</sub> H <sub>6</sub> NO	3.28	4.58	5.00	5.00	4.74
Arg	CH <sub>3</sub> N <sub>2</sub> ; C <sub>2</sub> H <sub>7</sub> N <sub>3</sub> ; C <sub>4</sub> H <sub>10</sub> N <sub>3</sub> ; C <sub>4</sub> H <sub>11</sub> N <sub>3</sub> ; C <sub>5</sub> H <sub>8</sub> N <sub>3</sub> ; C <sub>5</sub> H <sub>11</sub> N <sub>4</sub>	4.11	5.59	6.35	4.00	4.94
Ser	C <sub>2</sub> H <sub>6</sub> NO; C <sub>3</sub> H <sub>5</sub> O <sub>2</sub>	4.60	6.90	4.62	7.00	9.47
Thr	C <sub>4</sub> H <sub>5</sub> O; C <sub>3</sub> H <sub>8</sub> NO	4.76	11.04	7.31	12.00	11.70
Val	C <sub>4</sub> H <sub>10</sub> N; C <sub>5</sub> H <sub>7</sub> O <sup>+</sup>	6.90	6.68	4.04	1.00	10.03
Trp	C <sub>9</sub> H <sub>8</sub> N	0.33	1.52	3.65	2	1.25
Tyr	C <sub>7</sub> H <sub>7</sub> O	2.96	4.60	5.19	7	3.76