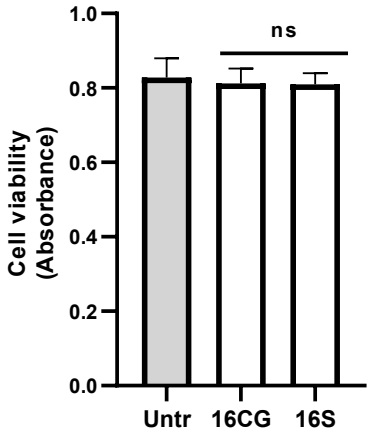


**Fig. S1.** Cell viability at 5 mg/mL concentrations of sausages peptides extracts. EA.hy926 cells were treated with sausages peptides extracts for 24 h. Cell viability was detected by the alamarBlue cell viability assay following the manufacturer's instruction. The data are expressed as mean ± SEM of six independent experiments. Untr means control group, ns, not significant ($P > 0.05$)

**Table S1** The peptide sequences with potential biologically activities identified from sausages fermented with *S.simulans* QB7.

| Numbers | Sequence | Mass | Length | m/z | RT | Score |
|---|---|---|---|---|---|---|
| 1 | FPMNPPKF | 976.484 | 8 | 489.25 | 44.2 | 0.970005 |
| 2 | GPGPWG | 569.2598 | 6 | 570.2684 | 29.84 | 0.966921 |
| 3 | PMMP | 474.1971 | 4 | 475.2046 | 38.48 | 0.963579 |
| 4 | FIFNL | 652.3584 | 5 | 653.3702 | 68.25 | 0.933294 |
| 5 | FLFNL | 652.3584 | 5 | 653.3702 | 68.25 | 0.930555 |
| 6 | PGPPL | 479.2744 | 5 | 480.2799 | 72.72 | 0.927501 |
| 7 | APPAPPPFE | 921.4595 | 9 | 461.7375 | 41.4 | 0.927131 |
| 8 | APPHIF | 680.3646 | 6 | 341.1907 | 29.25 | 0.921904 |
| 9 | SGIPAGWMG | 874.4007 | 9 | 875.4164 | 50.24 | 0.920365 |
| 10 | FRYLM | 1240.6387 | 10 | 414.5549 | 35.15 | 0.920332 |
| 11 | FRYIM | 728.3679 | 5 | 365.192 | 35.94 | 0.892328 |
| 12 | MPKFDLGPLL | 1129.6205 | 10 | 565.8188 | 64.12 | 0.887107 |
| 13 | DPDLPLKW | 982.5123 | 8 | 492.2645 | 54.98 | 0.877252 |
| 14 | TFPP | 460.2322 | 4 | 461.2432 | 28.49 | 0.858548 |
| 15 | FLFNI | 652.3584 | 5 | 653.3702 | 68.25 | 0.841206 |
| 16 | FIFNI | 652.3584 | 5 | 653.3702 | 68.25 | 0.837499 |
| 17 | PGPPI | 479.2744 | 5 | 480.2799 | 72.72 | 0.836798 |
| 18 | APSADAPMFV | 1004.4637 | 10 | 503.2389 | 50.06 | 0.797692 |
| 19 | LMGL | 432.2406 | 4 | 433.2448 | 43.65 | 0.795729 |
| 20 | FPPDVG | 630.3013 | 6 | 631.3077 | 35.72 | 0.786813 |
| 21 | IPRLP | 594.3853 | 5 | 298.2005 | 28.43 | 0.780286 |
| 22 | DLAHWL | 753.381 | 6 | 754.3885 | 53.85 | 0.779784 |
| 23 | LPRLP | 594.3853 | 5 | 298.2005 | 28.43 | 0.777391 |
| 24 | DNPGHPFI | 895.4188 | 8 | 448.7171 | 33.09 | 0.776018 |
| 25 | IMGL | 432.2406 | 4 | 433.2448 | 43.65 | 0.772713 |
| 26 | FVNDIF | 753.3697 | 6 | 754.3782 | 55.37 | 0.763945 |
| 27 | FDKPVSPLL | 1014.575 | 9 | 508.2955 | 43.29 | 0.763069 |
| 28 | VDGPSGKLWR | 1113.593 | 10 | 372.2048 | 24.33 | 0.757801 |
| 29 | ASGPINFT | 805.397 | 8 | 806.4028 | 39.32 | 0.751915 |
| 30 | APPHIFS | 767.3966 | 7 | 384.706 | 26.46 | 0.751584 |
| 31 | ALTPPLPPLP | 1014.6113 | 10 | 508.3142 | 58.29 | 0.745361 |
| 32 | FTL | 379.2107 | 3 | 380.218 | 35.81 | 0.738445 |
| 33 | FDPLLQ | 731.3854 | 6 | 732.3938 | 45.11 | 0.736968 |
| 34 | APPSVFA | 687.3591 | 7 | 688.3705 | 36.18 | 0.734984 |
| 35 | LPDPPDIEF | 1041.5018 | 9 | 521.7581 | 62.87 | 0.72627 |
| 36 | DPDLPLK | 982.5123 | 8 | 492.2645 | 54.98 | 0.690812 |
| 37 | PVSFP | 545.2849 | 5 | 546.2926 | 35.52 | 0.680993 |
| 38 | LPVHF | 611.3431 | 5 | 306.6784 | 32.9 | 0.678257 |
| 39 | VTRPFPLG | 885.5072 | 8 | 443.7613 | 34.32 | 0.675988 |
| 40 | PAAPL | 467.2744 | 5 | 468.2789 | 73.45 | 0.675637 |

**Table S1 (continued)**

| Numbers | Sequence | Mass | Length | m/z | RT | Score |
|---|---|---|---|---|---|---|
| 41 | IPVHF | 611.3431 | 5 | 306.6784 | 32.9 | 0.674882 |
| 42 | DMNQKLF | 894.4269 | 7 | 448.2213 | 36.21 | 0.669615 |
| 43 | HVGFDNF | 834.366 | 7 | 418.1915 | 35.82 | 0.664108 |
| 44 | FLVG | 434.2529 | 4 | 435.2609 | 35.44 | 0.662164 |
| 45 | DPDLP | 555.254 | 5 | 556.2637 | 32.05 | 0.657521 |
| 46 | IPRIP | 594.3853 | 5 | 298.2005 | 28.43 | 0.656801 |
| 47 | PVFH | 498.259 | 4 | 499.2659 | 32.54 | 0.653959 |
| 48 | LPRIP | 594.3853 | 5 | 298.2005 | 28.43 | 0.648772 |
| 49 | MWLPVVR | 899.5051 | 7 | 450.7606 | 48.24 | 0.641144 |
| 50 | SEGPLKGILG | 969.5494 | 10 | 485.7822 | 42.5 | 0.641046 |
| 51 | ERDPANIKWG | 1184.5938 | 10 | 395.8724 | 25.45 | 0.633425 |
| 52 | GASLKPEF | 1003.5338 | 10 | 502.7751 | 33.12 | 0.632333 |
| 53 | MQKIF | 665.3571 | 5 | 666.3658 | 51.64 | 0.627711 |
| 54 | AEWDDYVPKL | 1234.5869 | 10 | 618.3005 | 58.36 | 0.62203 |
| 55 | LMGI | 432.2406 | 4 | 433.2448 | 43.65 | 0.620108 |
| 56 | YALPHAIMR | 1070.5695 | 9 | 357.8636 | 30.81 | 0.619706 |
| 57 | KPVSPLL | 752.4796 | 7 | 377.2475 | 26.57 | 0.615485 |
| 58 | SPLPVIPH | 858.4963 | 8 | 430.256 | 37.71 | 0.605844 |
| 59 | KPVSPLLLA | 936.6008 | 9 | 469.3085 | 41.55 | 0.605842 |
| 60 | GPLKGILG | 753.4749 | 8 | 377.7473 | 35.39 | 0.601848 |
| 61 | FIVG | 434.2529 | 4 | 435.2609 | 35.44 | 0.598509 |
| 62 | FDPIIQ | 731.3854 | 6 | 732.3938 | 45.11 | 0.594521 |
| 63 | DPDIP | 555.254 | 5 | 556.2637 | 32.05 | 0.592037 |
| 64 | ANPLLEAFG | 930.481 | 9 | 466.2521 | 62.66 | 0.587951 |
| 65 | VIWDINSF | 992.4967 | 8 | 993.5047 | 69.27 | 0.582249 |
| 66 | DKPVSPLL | 867.5065 | 8 | 434.7615 | 35.65 | 0.581018 |
| 67 | ADAMLKALLG | 1001.5579 | 10 | 501.7871 | 53.48 | 0.577661 |
| 68 | IMGI | 432.2406 | 4 | 433.2448 | 43.65 | 0.574792 |
| 69 | ANPILEAFG | 930.481 | 9 | 466.2521 | 62.66 | 0.572759 |
| 70 | YETPTGWKF | 1127.5287 | 9 | 564.771 | 46.63 | 0.569517 |
| 71 | YVAF | 498.2478 | 4 | 499.2578 | 34.45 | 0.566593 |
| 72 | KYLDFVFA | 1001.5222 | 8 | 501.7661 | 48.48 | 0.564083 |
| 73 | PALGY | 519.2693 | 5 | 520.2751 | 115.86 | 0.563386 |
| 74 | DFSGSLPIK | 962.5073 | 9 | 482.2614 | 41.48 | 0.554249 |
| 75 | PAIGY | 519.2693 | 5 | 520.2751 | 115.86 | 0.553492 |
| 76 | VGVNGFGRIG | 974.5297 | 10 | 488.2736 | 34.46 | 0.537935 |
| 77 | FTI | 379.2107 | 3 | 380.218 | 35.81 | 0.531163 |
| 78 | ANPLLEAFGN | 1044.5239 | 10 | 523.2707 | 62.01 | 0.523219 |
| 79 | PHQYPALTP | 1151.561 | 10 | 576.7897 | 28.2 | 0.500366 |