

ORIGINAL RESEARCH ARTICLE

Identification of *BAK1* as a novel prognostic biomarker for liver cancer based on the mining of liver cancer pyroptosis-related genes

Supplementary File
Table S1. Survival analysis of pyroptosis

| Gene name | HR | HR.95L | HR.95H | P-value | km |
|---------------|------------|------------|------------|------------|------------|
| <i>BAK1</i> | 1.33275275 | 1.11158503 | 1.59792534 | 0.00191842 | 0.00130454 |
| <i>BAX</i> | 1.23407397 | 0.98735653 | 1.54244036 | 0.06458012 | 2.76E-05 |
| <i>CASP1</i> | 1.06853452 | 0.88359124 | 1.29218804 | 0.49421144 | 0.02746994 |
| <i>CASP3</i> | 1.23113338 | 0.95847222 | 1.58135976 | 0.10354533 | 5.19E-05 |
| <i>CASP4</i> | 1.17767816 | 0.93807045 | 1.47848795 | 0.15879666 | 0.00992071 |
| <i>CASP5</i> | 1.55651163 | 0.9871677 | 2.45422174 | 0.05686149 | 0.17919742 |
| <i>CHMP2A</i> | 0.93485042 | 0.69279097 | 1.26148482 | 0.65947624 | 0.23452247 |
| <i>CHMP2B</i> | 1.31798397 | 1.02413348 | 1.69614779 | 0.03193305 | 0.00267264 |
| <i>CHMP3</i> | 1.41810186 | 1.12816861 | 1.7825464 | 0.0027592 | 0.00201394 |
| <i>CHMP4A</i> | 1.17786974 | 0.9204822 | 1.50722864 | 0.19314799 | 0.00164021 |
| <i>CHMP4B</i> | 1.47124928 | 1.13549525 | 1.90628227 | 0.00348474 | 0.00123388 |
| <i>CHMP4C</i> | 1.1329499 | 0.94735688 | 1.35490175 | 0.17146761 | 0.04192621 |
| <i>CHMP6</i> | 1.34874486 | 0.99283418 | 1.83224223 | 0.05562579 | 0.02083939 |
| <i>CHMP7</i> | 1.37964088 | 1.0193511 | 1.86727513 | 0.03715272 | 0.00112851 |
| <i>CYCS</i> | 1.28362623 | 1.02402347 | 1.60904153 | 0.03031974 | 0.01536966 |
| <i>ELANE</i> | 0.825162 | 0.46658547 | 1.45930889 | 0.50884225 | 0.14178619 |
| <i>GSDMD</i> | 1.07458468 | 0.86063807 | 1.34171643 | 0.52540284 | 0.22812526 |
| <i>GSDME</i> | 1.40818711 | 1.21005219 | 1.63876479 | 9.67E-06 | 1.84E-07 |
| <i>GZMB</i> | 0.88625204 | 0.74591358 | 1.0529942 | 0.16978914 | 0.0055234 |
| <i>HMGB1</i> | 1.26939892 | 0.96254752 | 1.67407177 | 0.0911056 | 0.01902345 |
| <i>IL18</i> | 1.06457028 | 0.9191692 | 1.23297198 | 0.40367038 | 0.28425164 |
| <i>IL1A</i> | 2.056028 | 0.80012418 | 5.28324386 | 0.13442641 | 0.0097722 |
| <i>IL1B</i> | 1.12501032 | 0.90278501 | 1.40193757 | 0.29413136 | 0.02227705 |
| <i>IRF1</i> | 1.00870661 | 0.83456712 | 1.21918178 | 0.92856067 | 0.04782025 |
| <i>IRF2</i> | 1.12006492 | 0.87044504 | 1.44126897 | 0.37810153 | 0.03510371 |
| <i>TP53</i> | 0.9381841 | 0.78052793 | 1.1276847 | 0.49664199 | 0.00814959 |
| <i>TP63</i> | 1.08573227 | 0.74166356 | 1.58941954 | 0.67228597 | 0.03673186 |
| <i>AIM2</i> | 0.97098825 | 0.75879554 | 1.2425194 | 0.81497574 | 0.04772158 |
| <i>CASP6</i> | 1.35671295 | 1.03444798 | 1.77937419 | 0.02747301 | 0.00024231 |
| <i>CASP8</i> | 1.47298509 | 1.12125296 | 1.93505405 | 0.00540105 | 1.05E-07 |
| <i>CASP9</i> | 1.1663793 | 0.90933726 | 1.49607934 | 0.22562411 | 0.00181495 |
| <i>GPX4</i> | 1.26607122 | 0.94737103 | 1.6919837 | 0.11081332 | 0.00028829 |

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Table S1. (Continued)

| Gene name | HR | HR.95L | HR.95H | P-value | km |
|---------------|------------|------------|------------|------------|------------|
| <i>GSDMA</i> | 1.3719134 | 0.96345515 | 1.95353813 | 0.07951448 | 0.01651118 |
| <i>GSDMB</i> | 1.14326386 | 0.95432849 | 1.36960415 | 0.14629739 | 0.0048644 |
| <i>GSDMC</i> | 1.30836785 | 1.0218625 | 1.67520233 | 0.03305054 | 0.00085959 |
| <i>IL6</i> | 1.00310177 | 0.787986 | 1.27694294 | 0.97993716 | 0.26395885 |
| <i>NLRC4</i> | 1.61103421 | 1.11742084 | 2.32269807 | 0.01062665 | 0.0113018 |
| <i>NLRP1</i> | 1.09934774 | 0.86885921 | 1.39097962 | 0.43011893 | 0.00277173 |
| <i>NLRP2</i> | 1.08908706 | 0.87122859 | 1.36142298 | 0.45360587 | 0.14252993 |
| <i>NLRP3</i> | 1.30948393 | 0.95375964 | 1.79788293 | 0.09546986 | 0.03096074 |
| <i>NLRP6</i> | 0.79107519 | 0.66656839 | 0.93883834 | 0.00731217 | 0.00069427 |
| <i>NLRP7</i> | 1.34231732 | 0.44993239 | 4.00463681 | 0.59757861 | 0.22832755 |
| <i>NOD1</i> | 1.45921367 | 1.04373021 | 2.04009093 | 0.02708399 | 0.00498631 |
| <i>NOD2</i> | 1.53606988 | 1.14936816 | 2.0528763 | 0.00372232 | 0.00635566 |
| <i>PJVK</i> | 1.08241256 | 0.74384714 | 1.57507756 | 0.67903454 | 0.1419307 |
| <i>PLCG1</i> | 1.18522416 | 0.96965634 | 1.44871564 | 0.09709201 | 1.99E-05 |
| <i>PRKACA</i> | 0.9046937 | 0.67872631 | 1.2058921 | 0.49454476 | 0.09756257 |
| <i>PYCARD</i> | 1.04094181 | 0.927059 | 1.16881434 | 0.49728183 | 0.04609896 |
| <i>SCAF11</i> | 1.23536951 | 0.96439495 | 1.58248219 | 0.09432566 | 0.01033044 |
| <i>TIRAP</i> | 1.15428144 | 0.88711397 | 1.50191035 | 0.28543442 | 0.1226673 |
| <i>TNF</i> | 0.87397601 | 0.62131104 | 1.22939079 | 0.43909264 | 0.00893982 |
| <i>GZMA</i> | 0.86864516 | 0.75983856 | 0.99303254 | 0.0391733 | 0.00389534 |

HR: Hazard ratio, HR.95L: 95 confidence interval of hazard ratio lower bound, HR.95H: 95 confidence interval of hazard ratio higher bound, km: KM analysis is applied in survival analysis research, and also applied to competition risk time analysis for a period of time.