

Supplementary Table 8. The ranked top 10 hub genes and functions

Rank	Name	Score	Function
1	TLR4	83	Toll-like receptor 4 activation leads to an intracellular signaling pathway NF- κ B and inflammatory cytokine production which is responsible for activating the innate immune system.
2	CXCL1	79	The chemokine (C-X-C motif) ligand 1 acts as a chemoattractant for several immune cells, especially neutrophils or other non-hematopoietic cells to the site of injury or infection and plays roles in regulation of immune and inflammatory responses.
2	MMP9	79	Matrix metalloproteinase 9 is an enzyme that belong to the zinc-metalloproteinases family involved in the degradation of the extracellular matrix.
4	TLR6	60	Toll-like receptor 6 acts in a heterodimer form with TLR2. After dimerizing with TLR2, the NF- κ B intracellular signalling pathway is activated, leading to a pro-inflammatory cytokine production and activation of innate immune response.
5	CD44	44	The CD44 antigen is a cell-surface glycoprotein involved in cell-cell interactions, cell adhesion and migration.
6	LAMP1	33	Lysosomal-associated membrane protein 1 is a marker of degranulation on lymphocytes such as CD8+ and NK cells, which plays a role in tumor cell differentiation and metastasis.
7	GZMB	27	Granzyme B is a serine protease expressed by CTL and NK cells, which is crucial for the rapid induction of target cell apoptosis by CTL in cell-mediated immune response.
8	SPTAN1	26	Alpha II-spectrin is involved in organizing sub-sarcolemmal domains and stabilizing sarcolemmal membranes against the stresses associated with continuous cardiac contraction.
9	IL1RN	25	Interleukin-1 receptor (IL-1R) antagonist is an agent that binds non-productively to the cell surface IL-1R, the same receptor that binds interleukin 1 (IL-1), preventing IL-1 from sending a signal to that cell.
10	CHI3L1	24	Chitinase-3-like protein 1 is secreted by activated macrophages, chondrocytes, neutrophils and synovial cells, which play a role in inflammation and tissue remodeling.

NF- κ B, nuclear factor κ B; NK, natural killer; CTL, cytotoxic T lymphocyte.