**figure e-3** Upstream Regulators of GCA/VZV-negative TAs Compared to Control TAs without VZV Antigen

Significant upstream regulators (cytokines, growth factors, transcription regulators, transmembrane receptors, and transporters) and corresponding number of downstream genes were identified in GCA/VZV-negative TAs compared to control/VZV-negative TAs (red signifies activated, blue signifies repressed).

