Transcription factor IKZF1 acts as a critical regulator of lymphoid differentiation and is frequently deleted or mutated in B-cell precursor acute lymphoblastic leukemia.

**Progenitor B cell**
- Cytokine-dependent receptor signaling
- FLT3
- IL7R/CRLF2
- C-KIT
- Jak1
- STAT5
- B-lymphoid transcriptional regulators: IKZF1, BTG1, EBF1, PAX5
- B cell differentiation

**BCP-ALL**
- Activated cytokine receptor signaling
- FLT3*
- IL7R*/CRLF2+
- CCF1R/EPOR*
- PDGFR
- Jak1
- STAT5
- Jak2*
- BCR-ABL1
- Activated tyrosine kinase signaling
- Reduced activity B-lymphoid transcriptional regulators
- Proliferation
- Cell survival
- B cell differentiation

Marke et al., Haematologica, 2018