Hypoxia induces key Hodgkin and Reed/Sternberg cell characteristics in mature B cells

normal B cells
or
cell lines of germinal center-type diffuse large B cell lymphoma

cell culture
Hypoxic conditions
1% O₂

acquisition of an HRS cell-like phenotype

- downregulation of B cell genes
  - CD19
  - CD79a
  - LCK

- moderate upregulation of epigenetic regulators
  - KDM4C
  - PCGF2

- upregulation of non-B-cell genes
  - ID2
  - NOTCH1
  - JUN
  - NFκB

- deregulation of growth factors
  - DUSP phosphatase

Wein et al., Haematologica, 2015