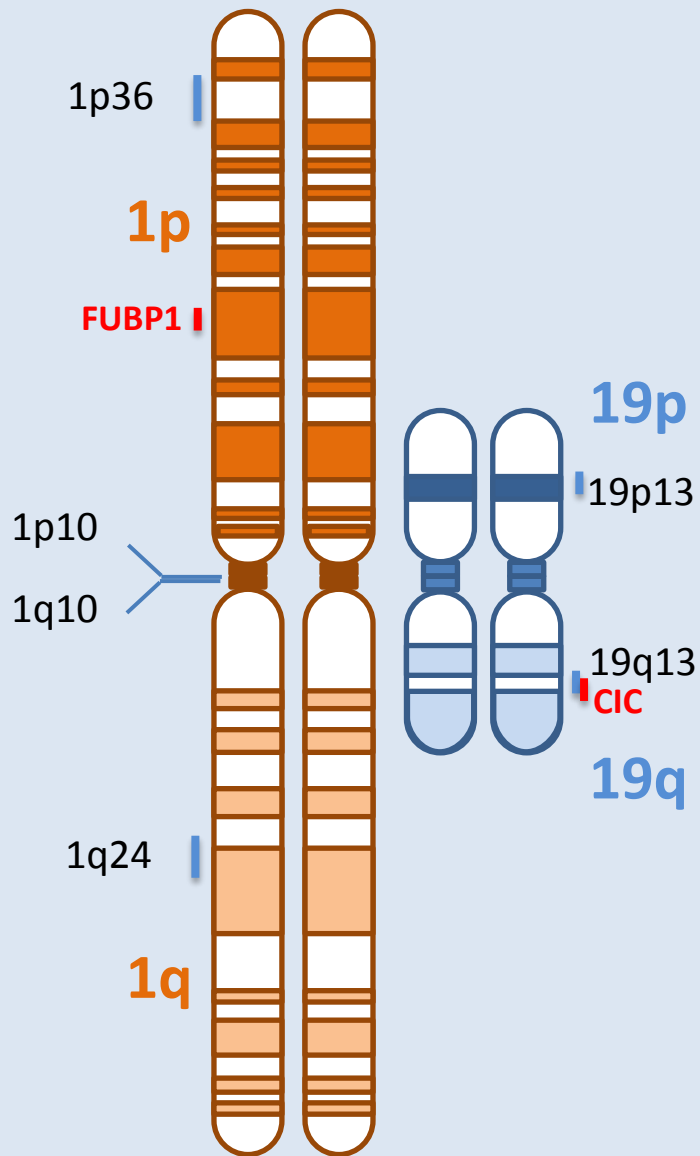
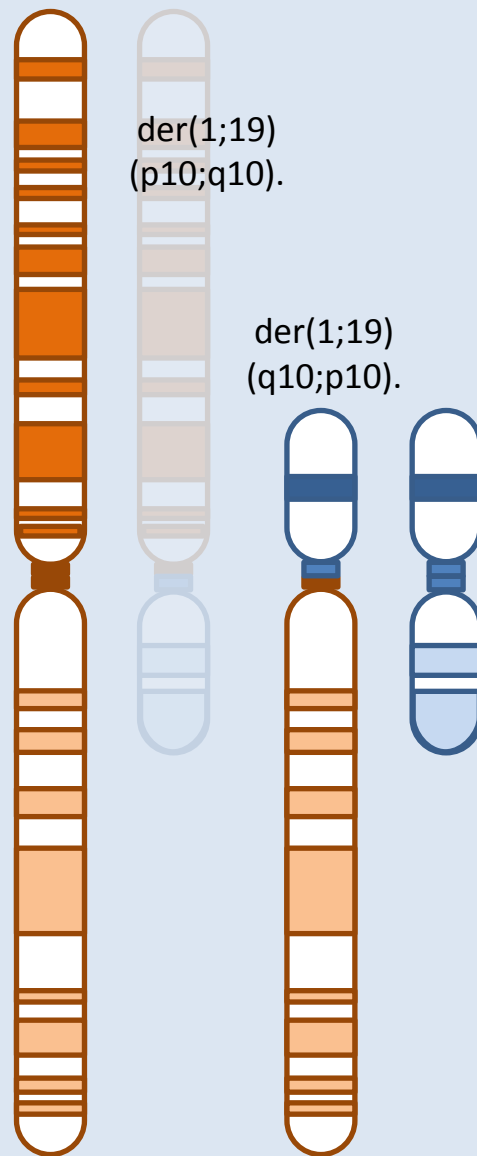


Normal cell



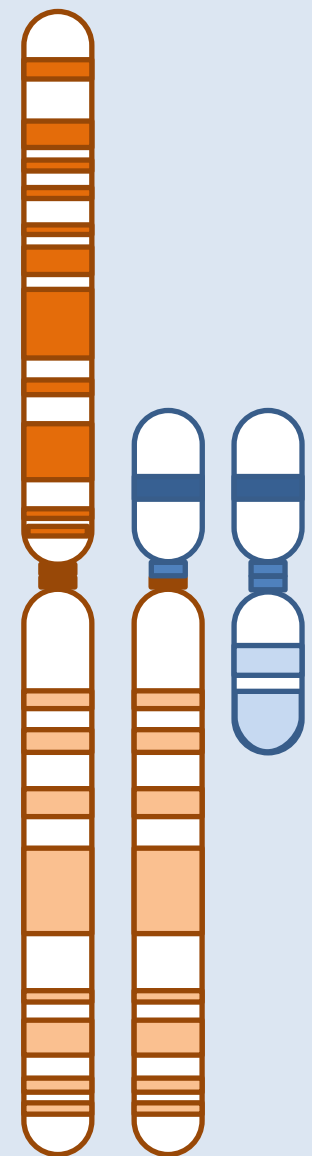
A

Unbalanced translocation

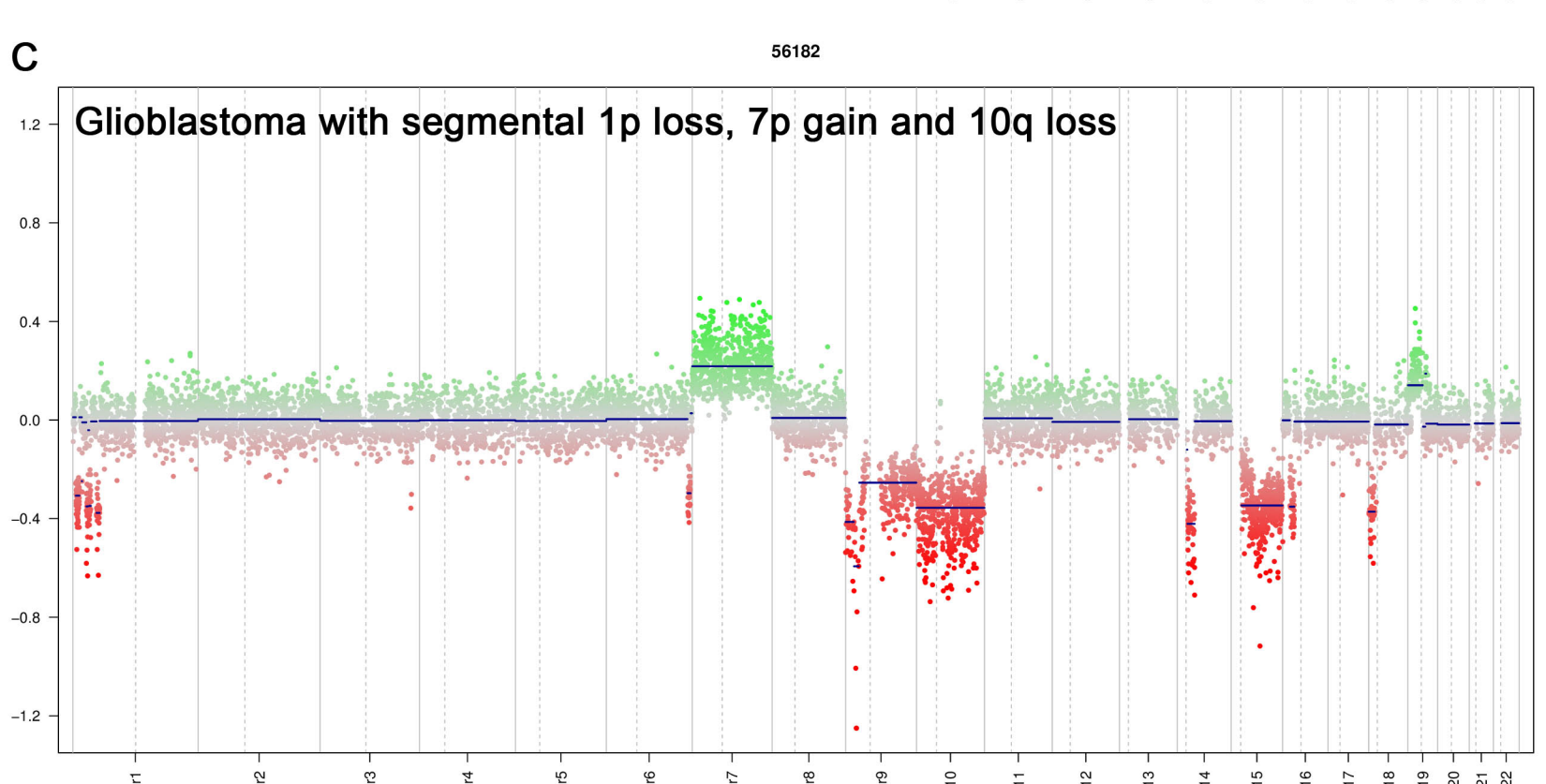
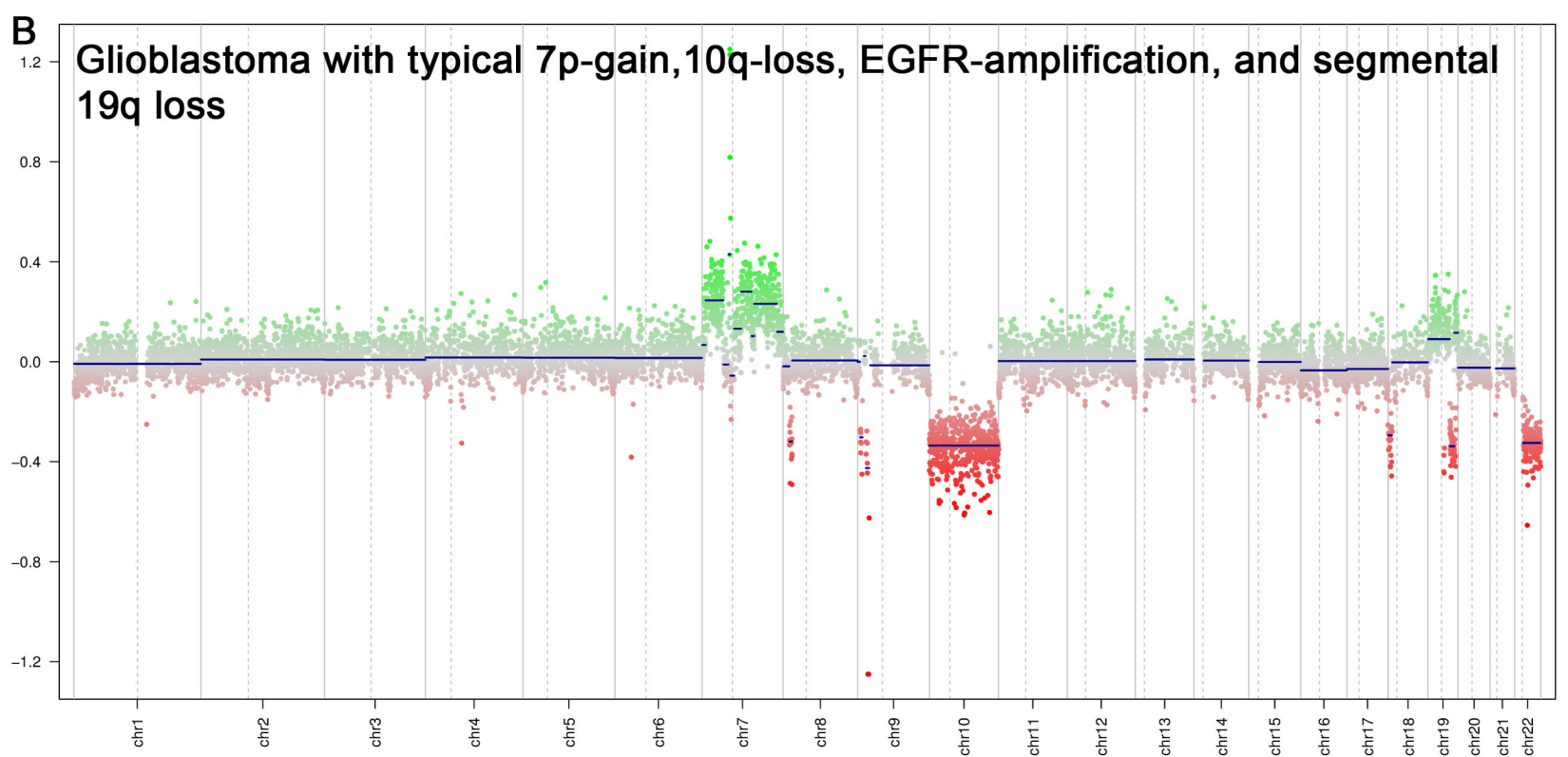
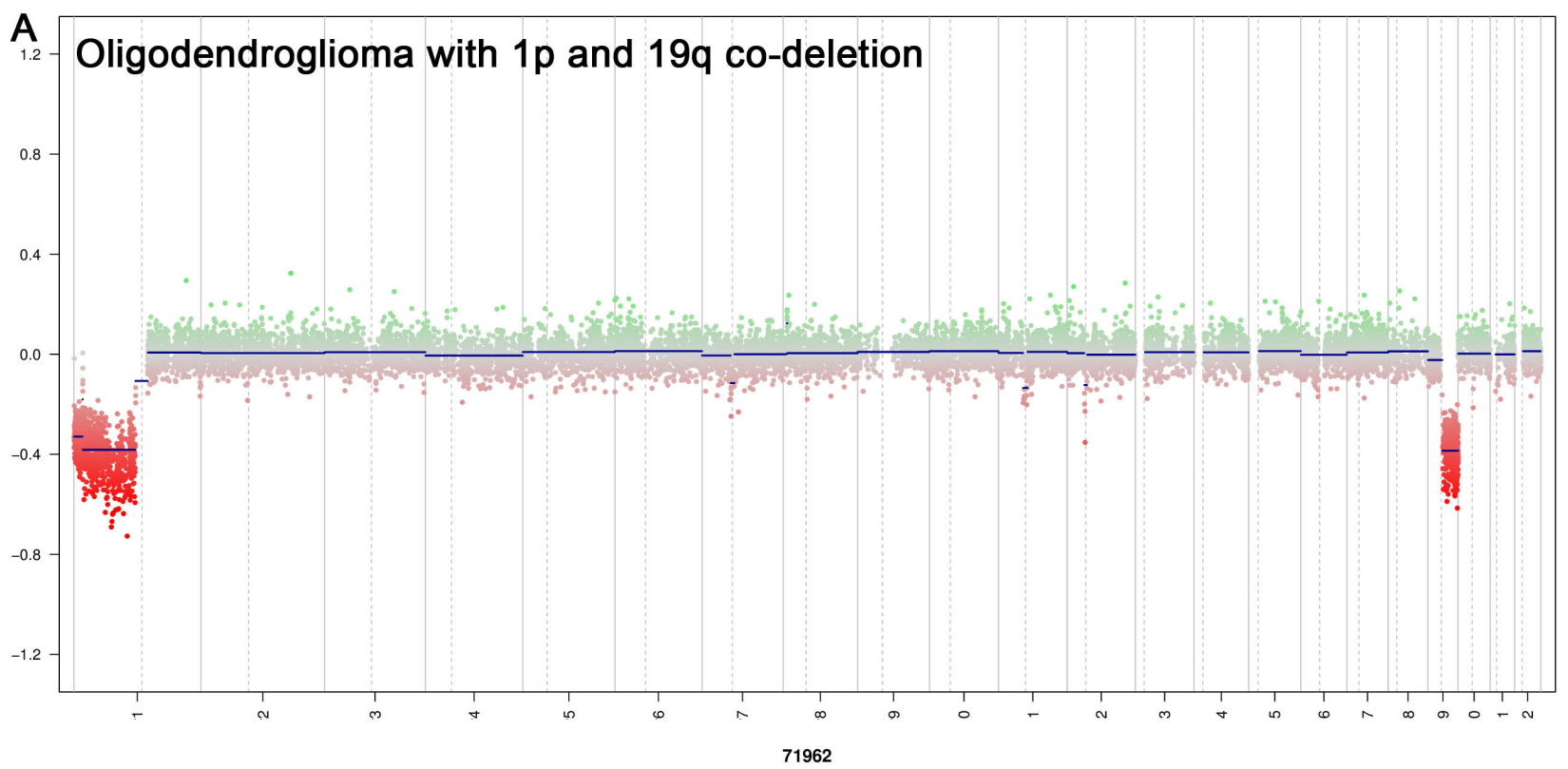


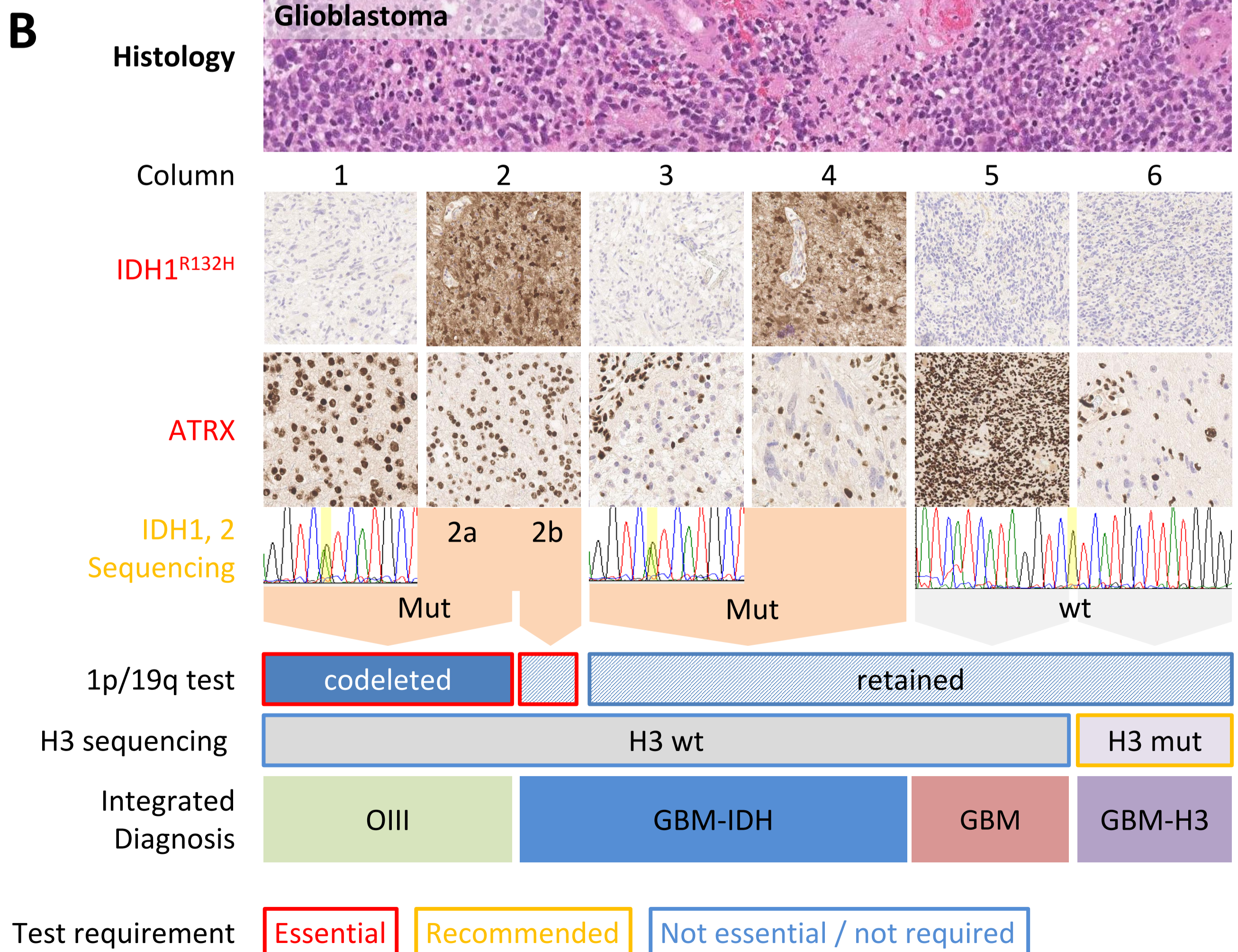
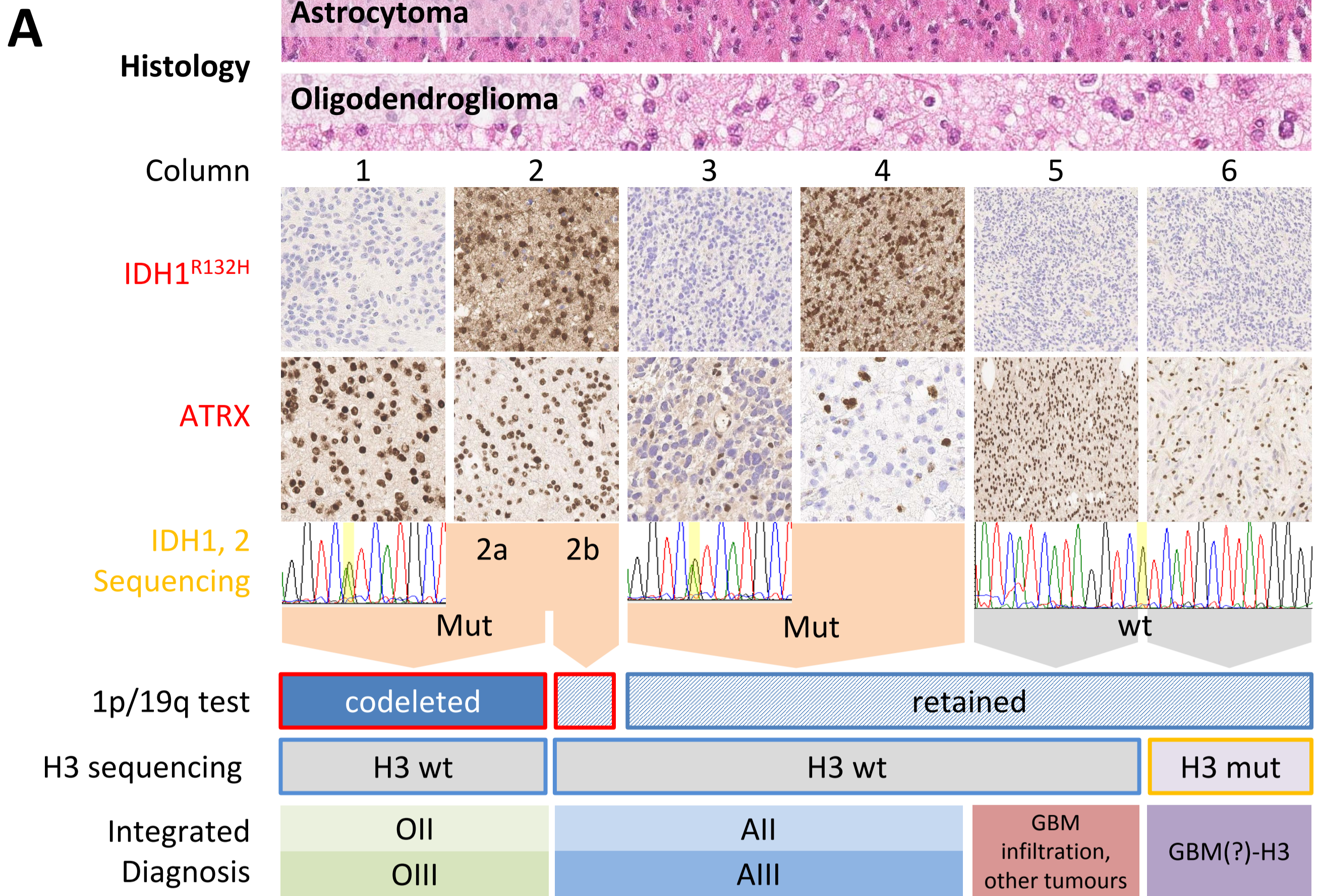
B

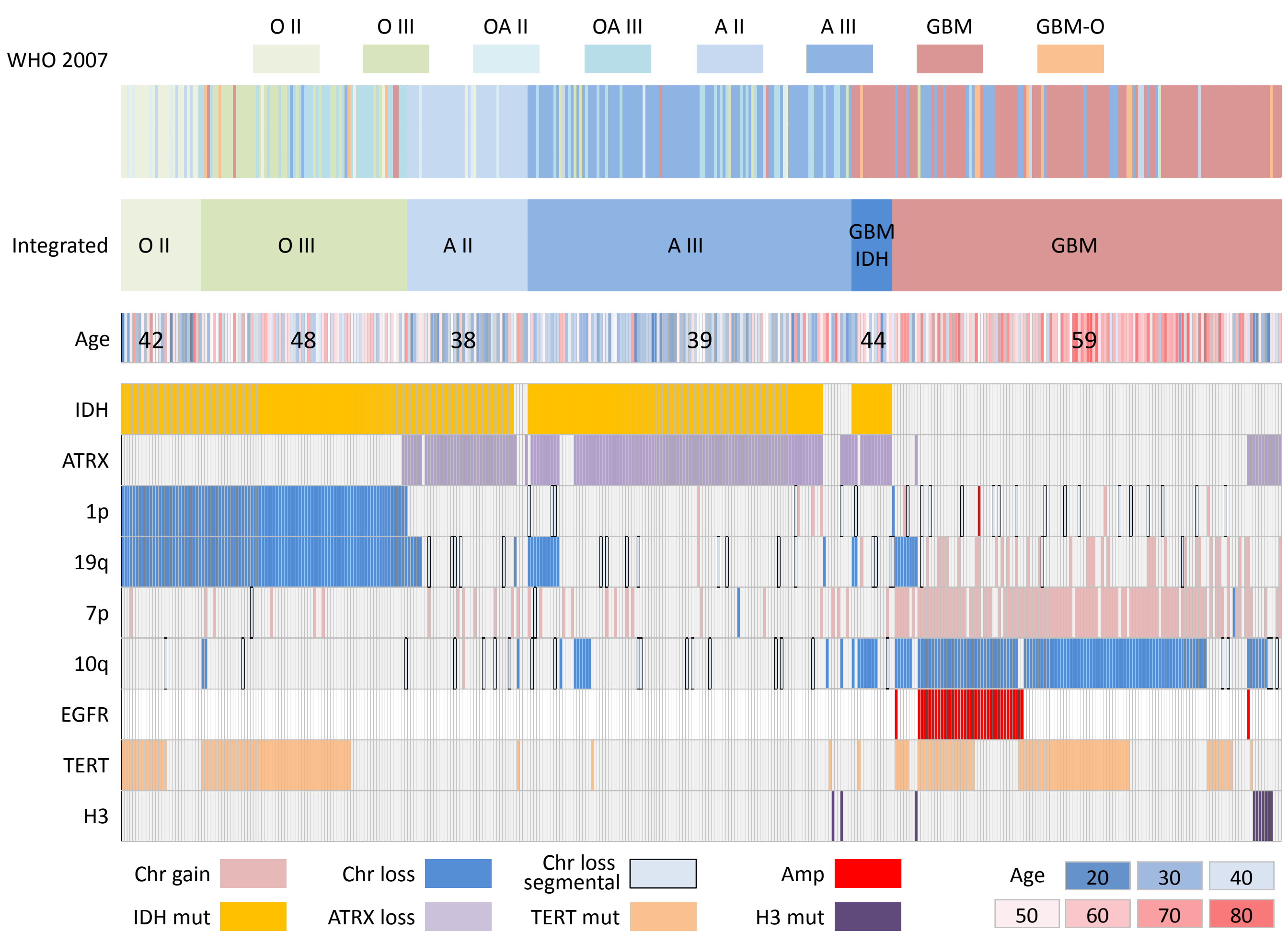
LOH 1p/19q

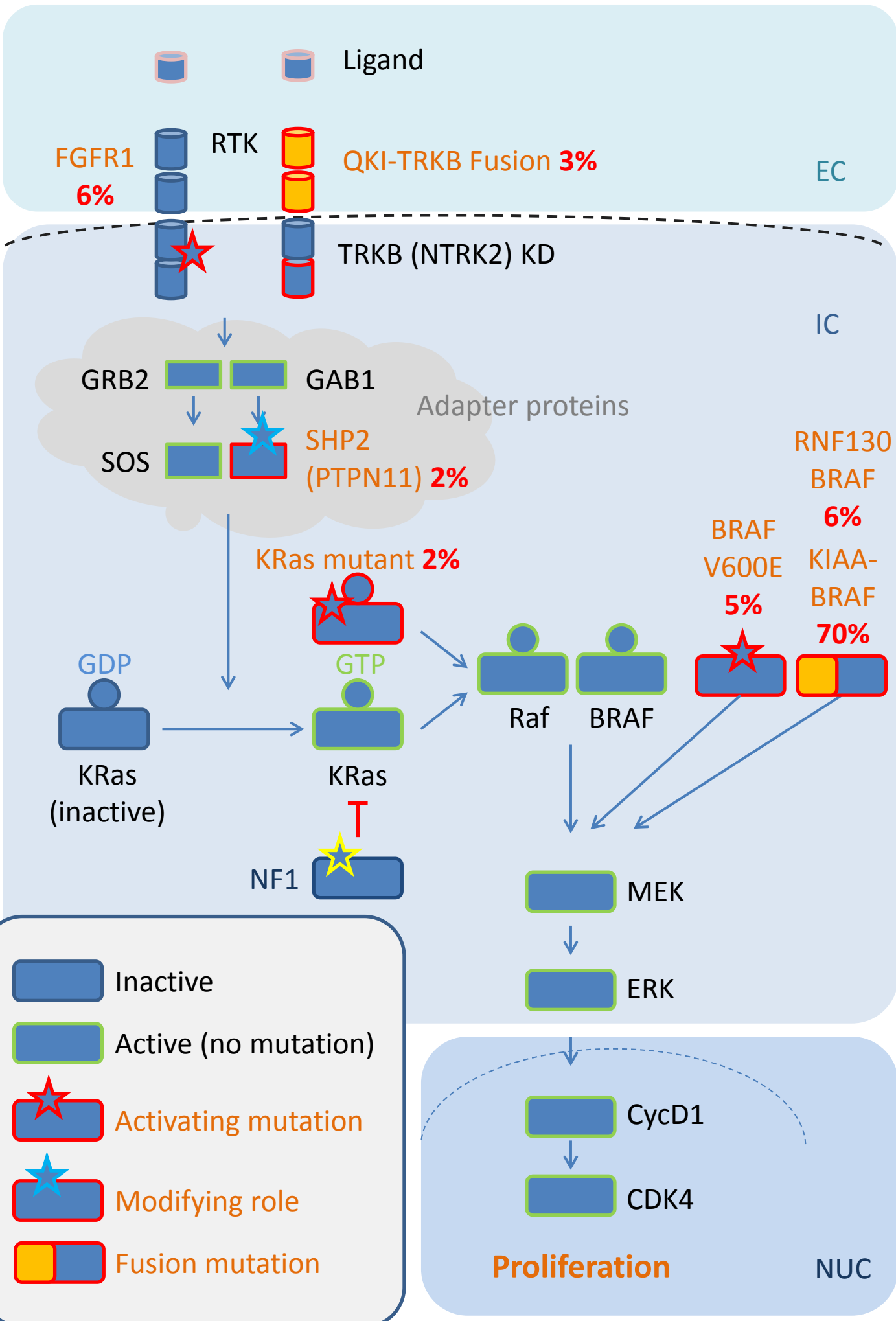


C









Ligand

FGFR1
6%

RTK

QKI-TRKB Fusion 3%

EC

TRKB (NTRK2) KD

GRB2

GAB1

Adapter proteins

SOS

SHP2
(PTPN11) 2%

RNF130

BRAF

6%

KIAA-

BRAF

70%

KRas mutant 2%

GDP

GTP

KRas
(inactive)

KRas

Raf

BRAF

BRAF

V600E

5%

KIAA-

BRAF

KRas

KRas

NF1

NF1

MEK

ERK

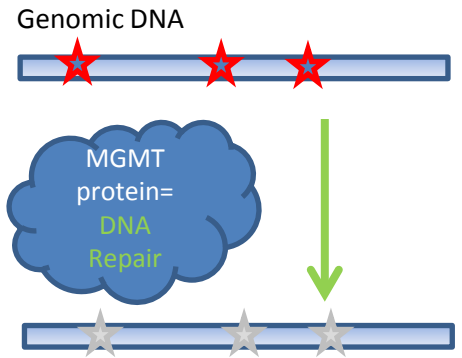
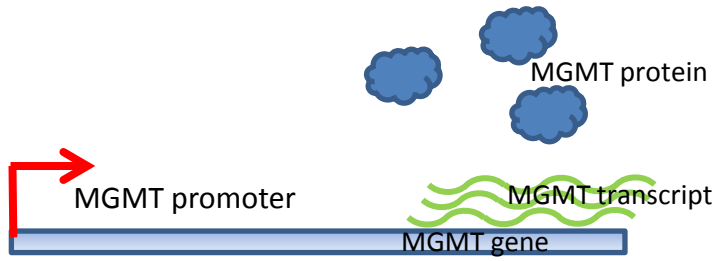
CycD1

CDK4

Proliferation

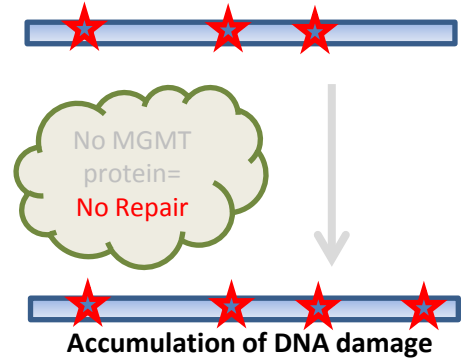
NUC

A Unmethylated MGMT promoter: DNA repair active



B Methylated MGMT promoter

No MGMT protein, accumulation of DNA damage



C Effects of MGMT promoter methylation on effectiveness of alkylating agents

