

## グリオーマの遺伝子・分子診断

IDH 1//2、ATRX、p53、Ki-67免疫染色による分類  
ははGrade IIIグリオーマの分子遺伝子診断のかわり  
りとなり患者の予後を予測する



ORIGINAL ARTICLE

## Immunohistochemistry on IDH 1/2, ATRX, p53 and Ki-67 substitute molecular genetic testing and predict patient prognosis in grade III adult diffuse gliomas

Shingo Takano<sup>1</sup> · Eiichi Ishikawa<sup>1</sup> · Noriaki Sakamoto<sup>1,2</sup> · Masahide Matsuda<sup>1</sup> · Hiroyoshi Akutsu<sup>1</sup> · Masayuki Noguchi<sup>2</sup> · Yukinari Kato<sup>3</sup> · Tetsuya Yamamoto<sup>1</sup> · Akira Matsumura<sup>1</sup>

Brain Tumor Pathol (2015) 32:169–175  
DOI 10.1007/s10014-015-0214-8



ORIGINAL ARTICLE

## Diagnostic advantage of double immunohistochemistry using two mutation-specific anti-IDH antibodies (HMab-1 and MsMab-1) in gliomas

Shingo Takano · Yukinari Kato · Tetsuya Yamamoto · Xing Liu · Eiichi Ishikawa · Mika K. Kaneko · Satoshi Ogasawara · Masahide Matsuda · Masayuki Noguchi · Akira Matsumura

Brain Tumor Pathol (2011) 28:115–123  
DOI 10.1007/s10014-011-0023-7

ORIGINAL ARTICLE

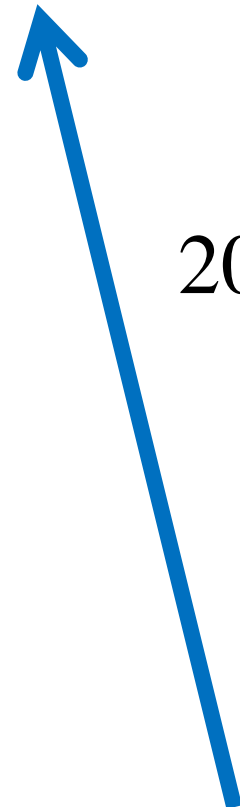
## Detection of IDH1 mutation in human gliomas: comparison of immunohistochemistry and sequencing

Shingo Takano · Wei Tian · Masahide Matsuda · Tetsuya Yamamoto · Eiichi Ishikawa · Mika Kato Kaneko · Kentaro Yamazaki · Yukinari Kato · Akira Matsumura

2016

2015

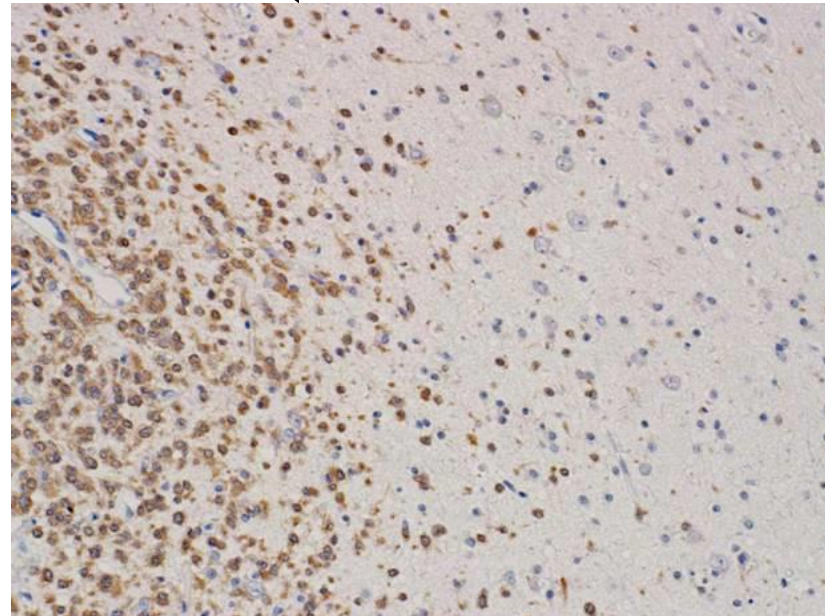
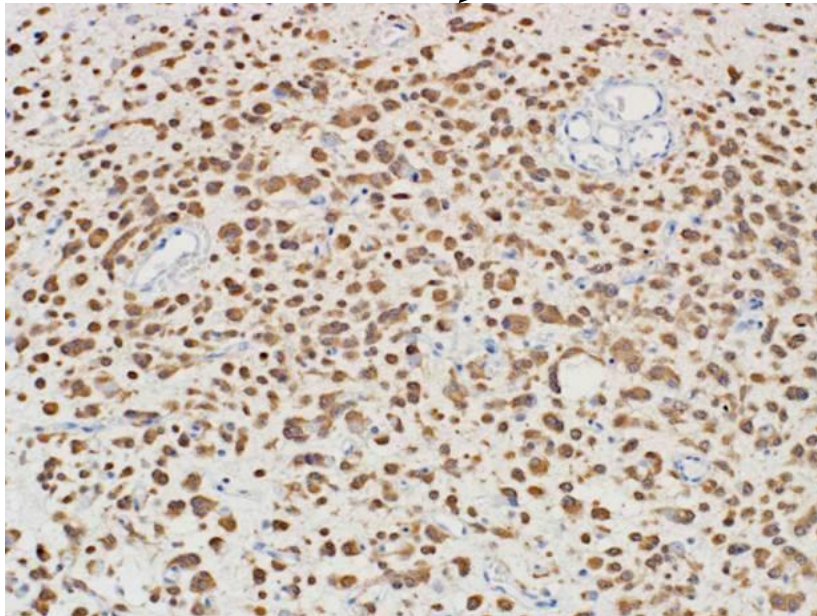
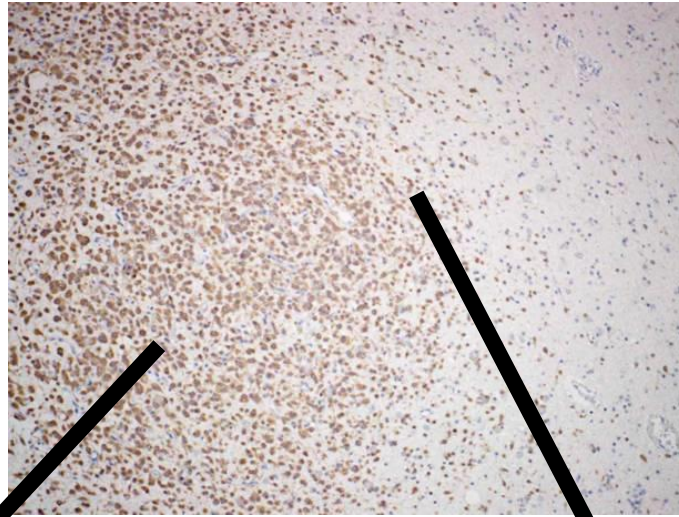
2011



2011

# IDH1R132H Immunohistochemistry

**Anaplastic  
astrocytoma**



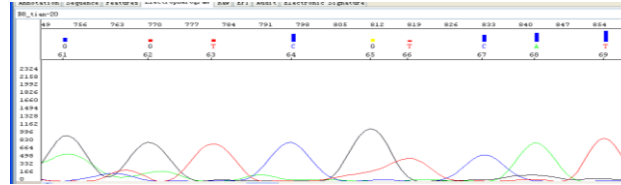
# 2011 R132H mutation was detected by subcloning

Direct sequence

**09T22**

092710-seq-20

WT

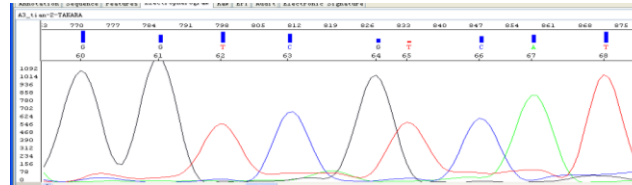


1回目

**09T22**

092810-seq-2

WT



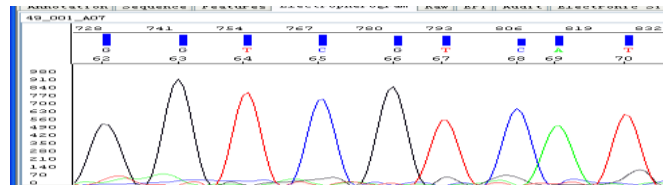
2回目

## Subcloning & Sequence

**09T22** Total =64

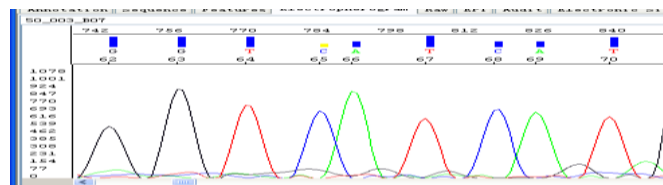
WT=58

100610-seq-49



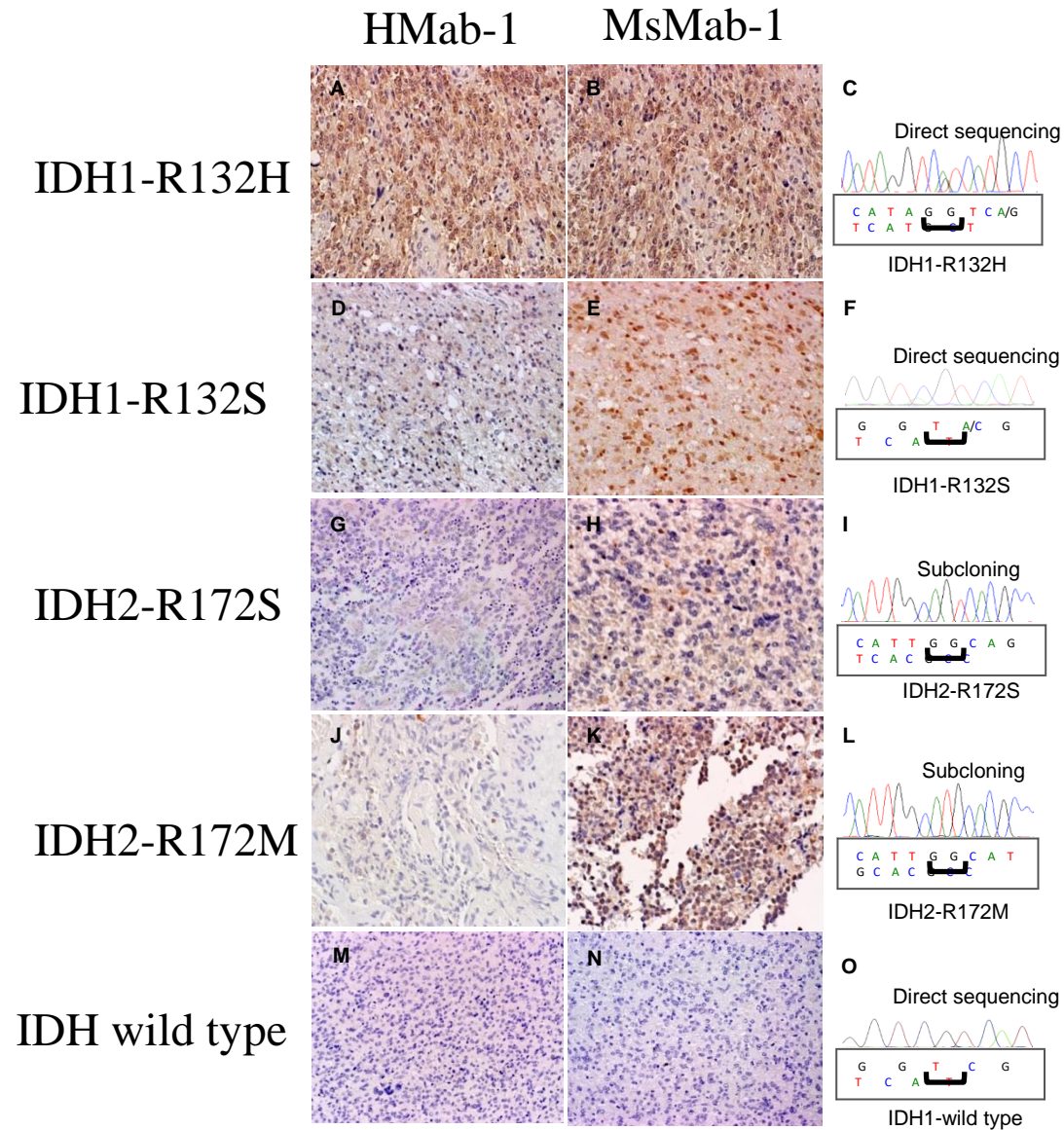
R132H=6

100610-seq-50



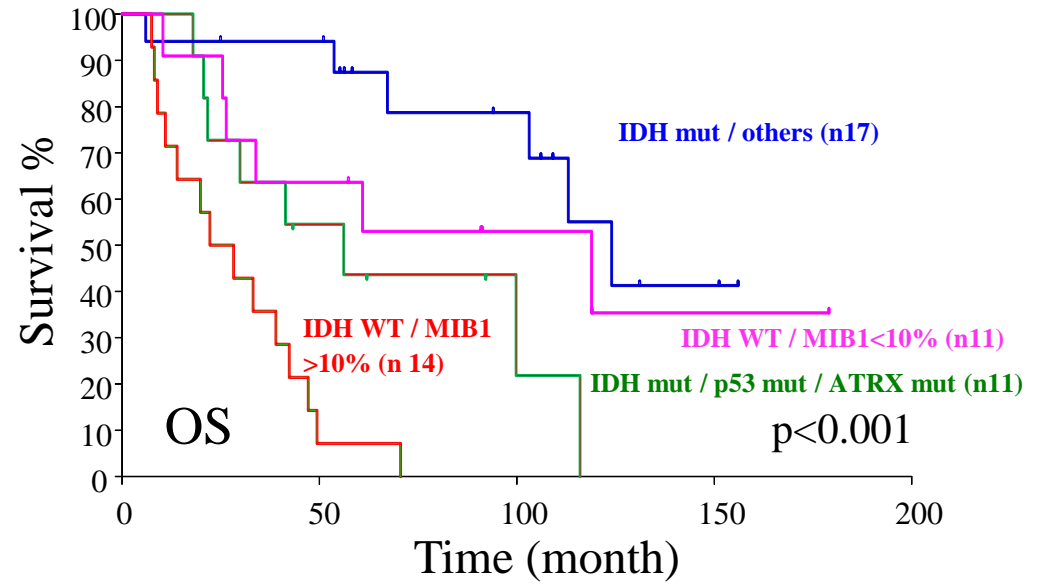
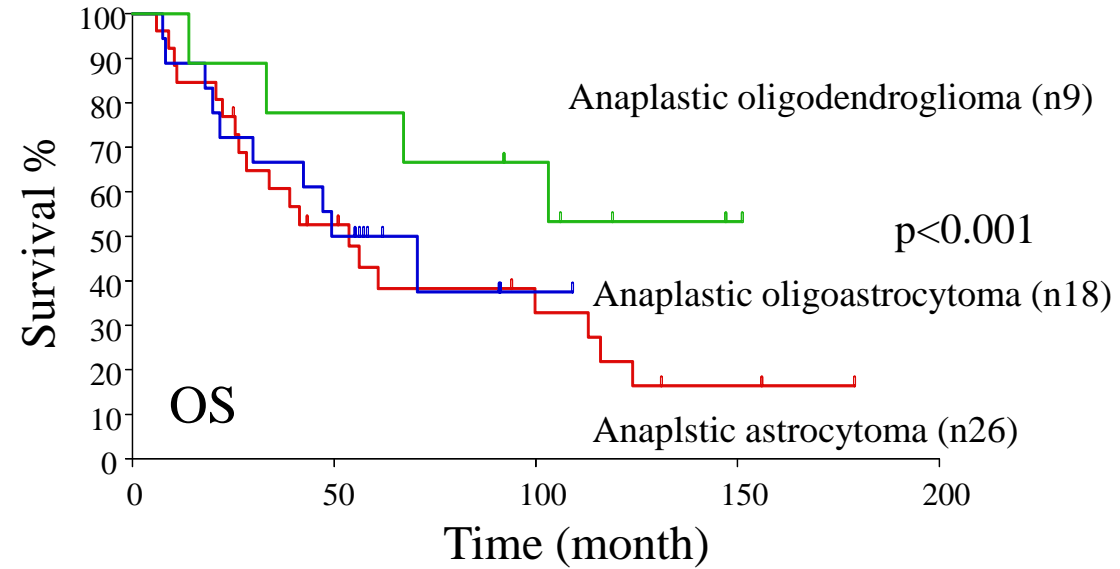
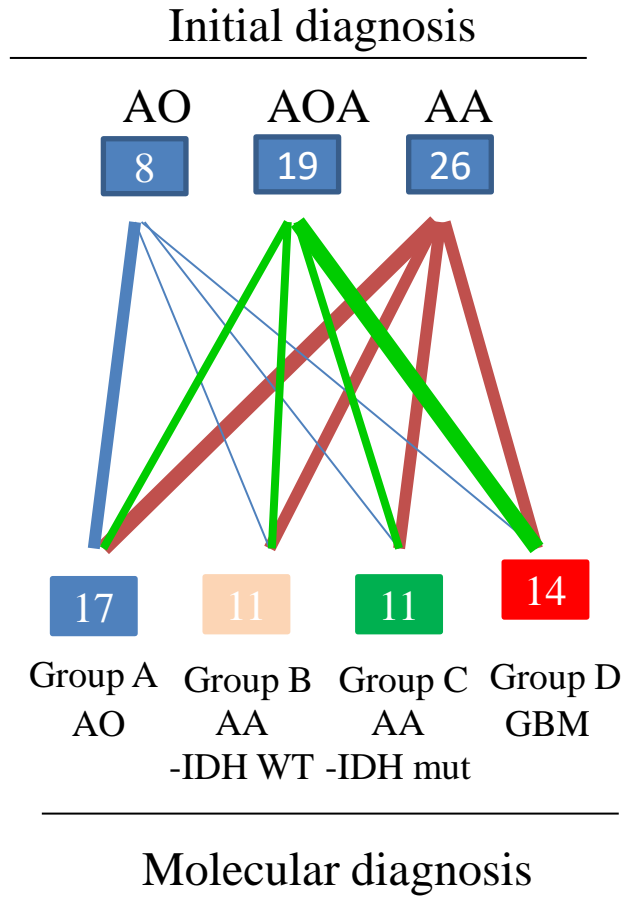
# 2015

## Diagnostic advantage of double immunohistochemistry

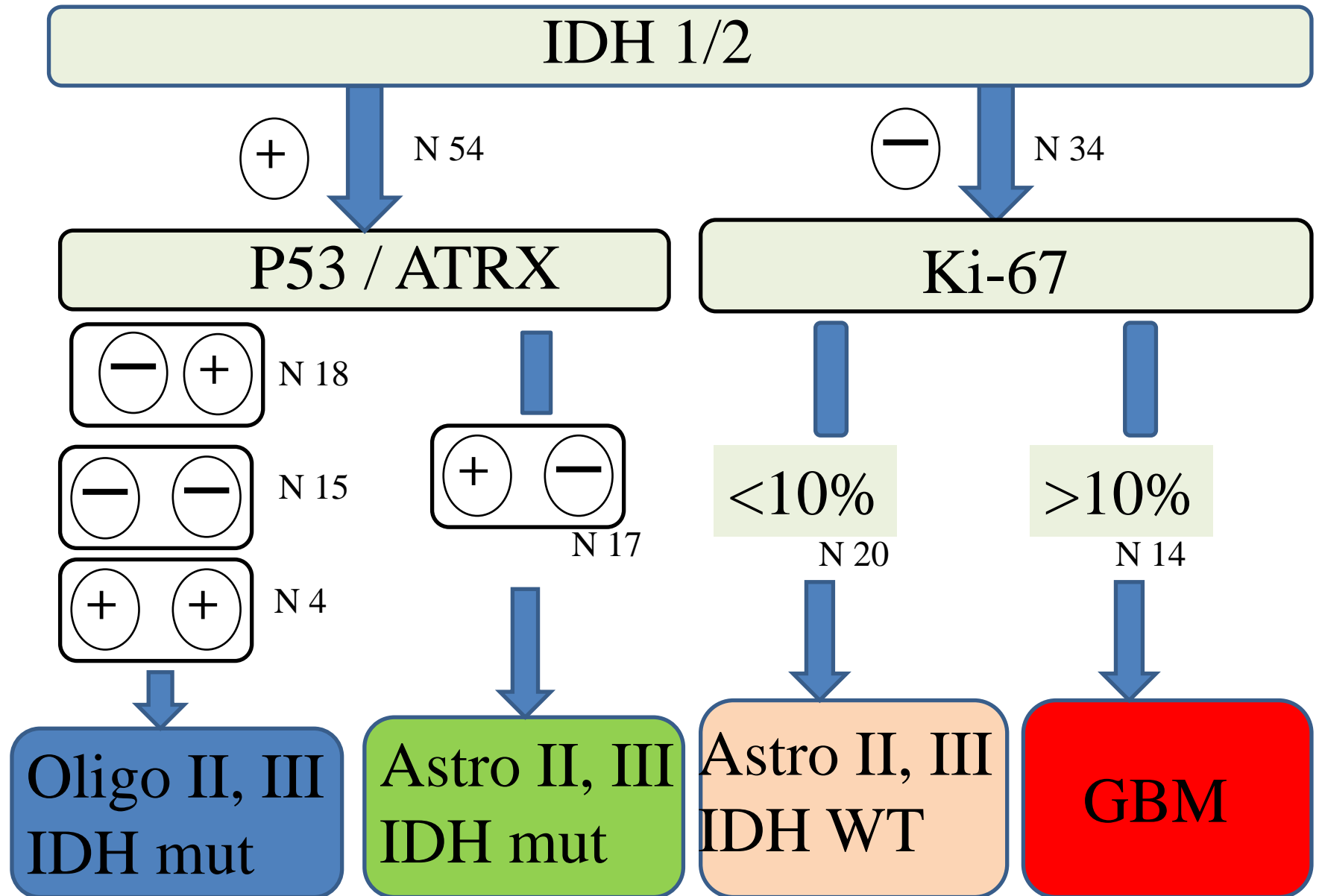


# Molecular classification by IHC

## Grade III OS



# Molecular classification approach by IHC: Grade II+ III glioma (n 88)



# Molecular classification by IHC

## Grade II + III OS

