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## **DATASHEET**

Anti-Ki-67 antibody  $ValidAb^{TM}$ 

### **Product overview**

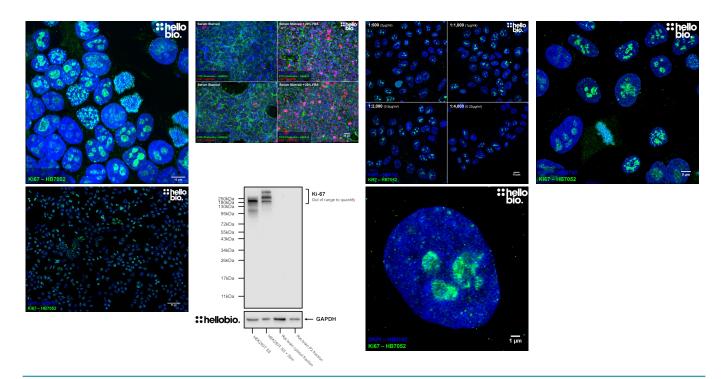
Name Anti-Ki-67 antibody ValidAb<sup>TM</sup>

Cat No HB7052
Host Mouse
Clonality Monoclonal
Target Ki-67

**Description** Antibody to Ki-67 - a widely used marker of proliferating cells. Part of the ValidAb™ range of highly

validated, data-rich antibodies.

### Validation data



### **Product information**

Immunogen Nuclei derived from the L428 Hodgkin Lymphoma cell line

Clone number Ki-67 Isotype IgG1

Purification Protein A affinity chromatography

Concentration 1mg/ml

Formulation Lyophilised. When reconstituted contains PBS with 15mM sodium azide and 1% recombinant albumin

Predicted species reactivity
Tested species reactivity
Human, Cow
Human

**Applications** 

Western blot optimal concentration

ICC optimal concentration

Positive control

0.5µg/ml (1:2,000 dilution) as tested in cultured HEK293T cells.

All proliferating cells express Ki-67. An easy positive control is using any standard cell line under

normal culturing conditions.

Cells in G<sub>0</sub> do not express Ki-67. An easy negative control is to serum starve cells by growing in serum **Negative control** 

free media to arrest the cell cycle and inhibit Ki-67 expression.

2µg/ml (1:500 dilution) as tested in cultured HEK293T cells.

Open data link Please follow this link to OSF

ICC. WB

## **Target information**

Other names Proliferation marker protein Ki-67, Antigen identified by monoclonal antibody Ki-67, MKI67

**UniProt ID** P46013 MKI67 Gene name

NCBI full gene name marker of proliferation Ki-67

Entrez gene ID

Amino acids 3,256 (358.7kDa)

Isoforms Ki-67 has two isoforms produced by differential splicing:

Long - 3,256 amino acids (358.7kDa)

Short - 2,896 amino acids (319.4kDa) - missing residues 136-495

**Expression** Ki-67 is found in all proliferating cells.

Subcellular expression Ki-67 is expressed in the nucleus where its localisation changes by cell cycle phase but is

predominantly found in association with DNA.

**Processing** Ki-67 is not subject to any processing to form the active conformation.

Post translational Ki-67 is subject to phosphorylation on many of its serine, threonine and tyrosine residues alongside

forming cross-links with SUMO1 and SUMO2 at multiple residues.

Mouse and rat Ki-67 show low homology with human Ki-67 with homology scores of 42.7% and 43.4% homology respectively. Due to this low homology HB7052 does not react with mouse and rat Ki-67.

There are no proteins with significant homology to Ki-67

## Storage & Handling

Homology (compared to

Storage instructions Reconstitution advice

modifications

Similar proteins

human)

-20°C then use reconstitution advice Upon receipt store at either -20°C or -80°C.

### For 100µg packs either:

- Reconstitute with 100µl dH2O and store at 4°C
- Reconstitute with 50µl dH<sub>2</sub>O and 50µl glycerol then store at -20°C
- Reconstitute with 100µl dH<sub>2</sub>O, aliquot then snap freeze and store at -80°C

#### For 25µg packs either:

- Reconstitute with 25µl dH<sub>2</sub>O and store at 4°C
- Reconstitute with 12.5µl dH<sub>2</sub>O and 12.5µl glycerol then store at -20°C
- Reconstitute with 25µl dH<sub>2</sub>O, aliquot then snap freeze and store at -80°C

For more information read our guide on the best care for your product. Take care when opening as the precipitate is extremely light and can easily be lost if disturbed. When reconstituting make sure that the antibody is thoroughly dissolved by pipetting up and down before giving the antibody a brief spin at 10,000g to make sure that all material is recovered and at the bottom of the tube.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use

# **Important**

## References

### Ki-67 gene expression.

PubMedID 34183782

### Ki-67: more than a proliferation marker.

Sun X et al (2018) Chromosoma 127

PubMedID 29322240

### The Ki-67 protein: from the known and the unknown.

Scholzen T et al (2000) Journal of cellular physiology 182

**PubMedID** 10653597

### Ki67 is a promising molecular target in the diagnosis of cancer (review).

Li LT et al (2015) Molecular medicine reports 11 **PubMedID** 25384676

### Ki-67 protein as a tumour proliferation marker.

Menon SS et al (2019) Clinica chimica acta; international journal of clinical chemistry 491

PubMedID 30653951