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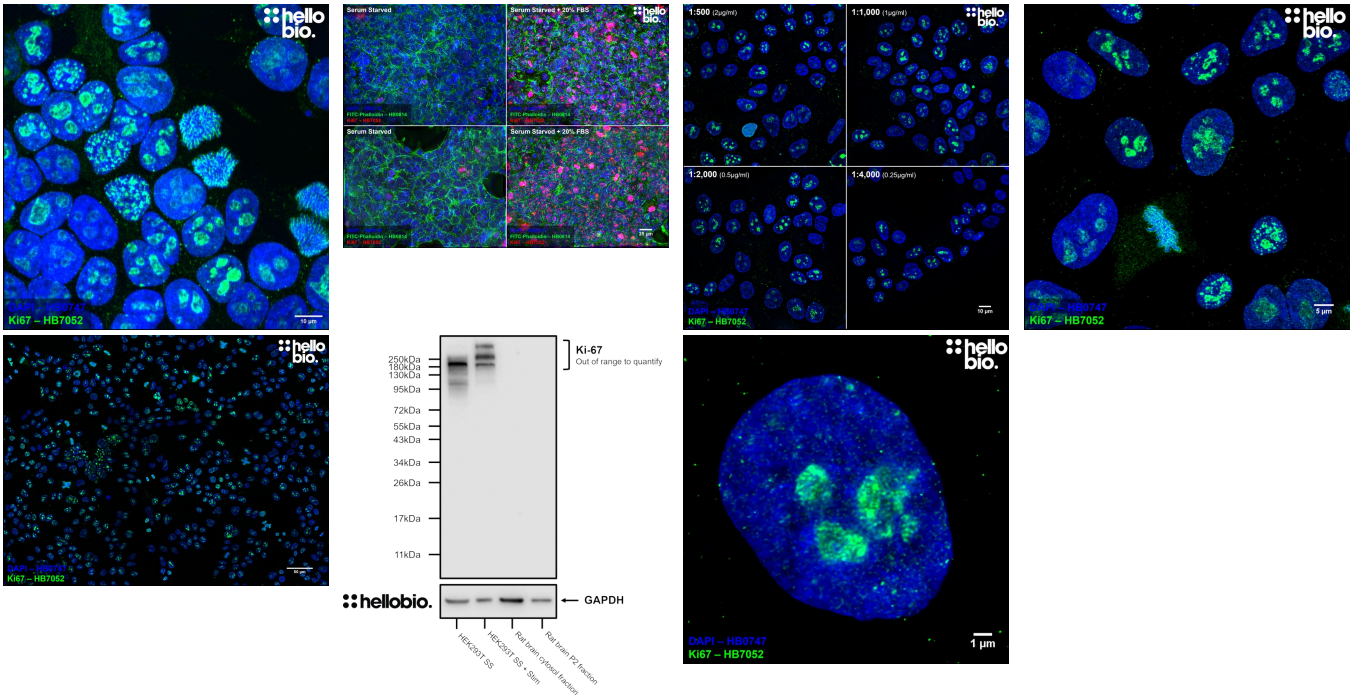
DATASHEET

Anti-Ki-67 antibody ValidAb™

Product overview

Name	Anti-Ki-67 antibody ValidAb™
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	Human, Cow
Tested species reactivity	Human

Tested applications

Applications	ICC, WB
Western blot optimal concentration	2µg/ml (1:500 dilution) as tested in cultured HEK293T cells.
ICC optimal concentration	0.5µg/ml (1:2,000 dilution) as tested in cultured HEK293T cells.
Positive control	All proliferating cells express Ki-67. An easy positive control is using any standard cell line under normal culturing conditions.
Negative control	Cells in G_0 do not express Ki-67. An easy negative control is to serum starve cells by growing in serum free media to arrest the cell cycle and inhibit Ki-67 expression.
Open data link	Please follow this link to OSF

Target information

Other names	Proliferation marker protein Ki-67, Antigen identified by monoclonal antibody Ki-67, MKI67
UniProt ID	P46013
Gene name	MKI67
NCBI full gene name	marker of proliferation Ki-67
Entrez gene ID	4288
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 modifications	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.
Homology (compared to human)	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.
Similar proteins	There are no proteins with significant homology to Ki-67

Storage & Handling

Storage instructions	-20°C then use reconstitution advice
Reconstitution advice	Upon receipt store at either -20°C or -80°C. For 100µg packs either: • Reconstitute with 100µl dH_2O and store at 4°C • Reconstitute with 50µl dH_2O and 50µl glycerol then store at -20°C • Reconstitute with 100µl dH_2O, aliquot then snap freeze and store at -80°C For 25µg packs either: • Reconstitute with 25µl dH_2O and store at 4°C • Reconstitute with 12.5µl dH_2O and 12.5µl glycerol then store at -20°C • Reconstitute with 25µl dH_2O, 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.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

Ki-67 gene expression.

Uxa S et al (2021) Cell death and differentiation 28

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
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