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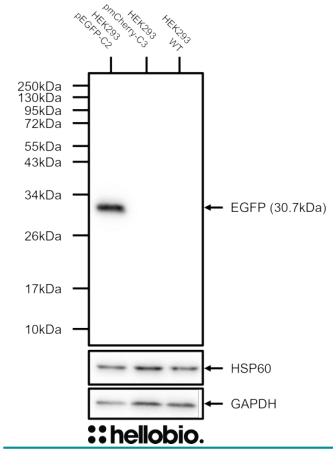
DATASHEET

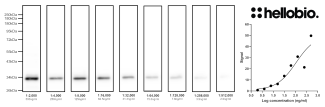
Anti-GFP antibody ValidAb™

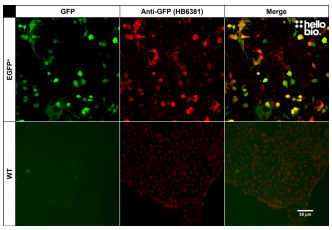
Product overview

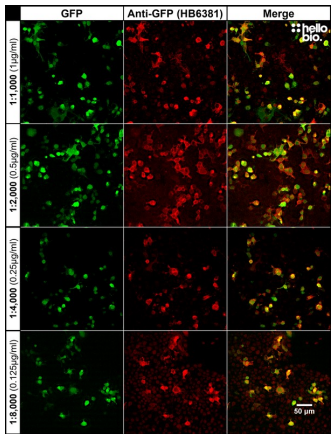
Name	Anti-GFP antibody ValidAb™
Cat No	HB6381
Host	Mouse
Clonality	Monoclonal
Target	GFP
Description	Monoclonal antibody (IgM) to GFP - green coloured fluorescent protein widely used as a tag in molecular biology. Part of the ValidAb™ range of highly validated, data-rich antibodies.

Validation data









Product information

Immunogen	Recombinant prot-r-AcGFP expressed in and purified from E. coli
Epitope	Localised to the N-terminus of both GFP (amino acids 1-17) and recombinant prot-r-AcGFP (amino acids 36-53) to the sequence MVSKGAELFTGIVPILIE
Clone number	1F1
Isotype	IgM
Purification	Protein L affinity chromatography
Concentration	1 mg/ml
Formulation	50% PBS, 50% glycerol + 5mM sodium azide
Predicted species reactivity	Species Independent
Tested species reactivity	Species Independent

Tested applications

Applications	ICC, WB
Western blot optimal concentration	Dependent upon sample GFP expression. We used 125ng/ml (1:8,000 dilution) in pEGFP-C2 transfected HEK293 cells.
ICC optimal concentration	Dependent upon sample GFP expression. We used 500ng/ml (1:2,000 dilution) in pEGFP-C2 transfected HEK293T cells.

Positive control	Any tissue or cell sample that has been engineered to express GFP.
Negative control	Any wild type tissue or cellular sample.
Open data link	Please follow this this link to OSF

Target information

Other names	EGFP, green fluorescent protein, EYFP
UniProt ID	P42212
Gene name	GFP
NCBI full gene name	green fluorescent protein
Amino acids	238 (27kDa)
Isoforms	None
Expression	Exogenously expressed only. Not expressed natively in mammalian cells.
Subcellular expression	GFP is generally expressed cytosolically in basic constructs however expression can be directed to any cellular compartment through GFP-tagged proteins that naturally express in only certain compartments.
Processing	NA
Post translational modifications	NA
Homology (compared to human)	NA
Similar proteins	EGFP (enhanced GFP, 26.9kDa) and YFP (yellow fluorescent protein, 26.4kDa) are both extremely similar.
Epitope homology (between species)	NA
Epitope homology (other proteins)	In a BLAST search considering potential cross-reactivities with human, rat and mouse proteins the following proteins were identified: • Bromodomain-containing protein 3 (Human) - 100% identity across 38% of the query • NADH-ubiquinone oxidoreductase chain 1 (Human) - 100% identity across 33% of the query • Tudor domain containing protein 6 (Human) - 80% identity across 50% of the query • Sodium/hydrogen exchanger 11 (Human) - 80% identity across 55% of the query. However none of these cross-reactivites were observed experimentally implying that the short query covers were insufficient to produce immunoreactivity to non-GFP epitopes.

Storage & Handling

Storage instructions	-20°C
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

Green fluorescent protein: a perspective.

Remington SJ (2011) Protein science : a publication of the Protein Society 20
PubMedID 21714025

Fluorescent proteins as biomarkers and biosensors: throwing color lights on molecular and cellular processes.

Stepanenko OV et al (2008) Current protein & peptide science 9
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A guide to choosing fluorescent proteins.

Shaner NC et al (2005) Nature methods 2
PubMedID 16299475

The green fluorescent protein.

Tsien RY (1998) Annual review of biochemistry 67
PubMedID 9759496

Crystal structure of the Aequorea victoria green fluorescent protein.

Ormö M et al (1996) Science (New York, N.Y.) 273

PubMedID 8703075