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DATASHEET

Anti-GFP antibody ValidAb™

Product overview

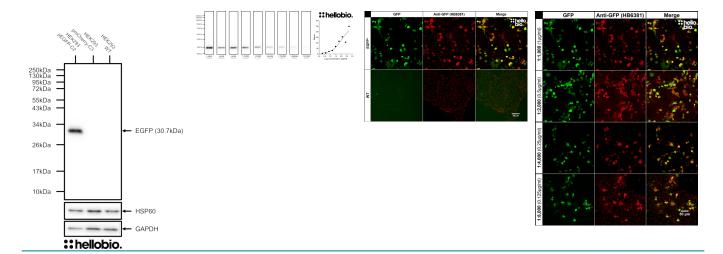
Name Anti-GFP antibody ValidAb™

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 ValidAbTM 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 Dependent upon sample GFP expression. We used 125ng/ml (1:8,000 dilution) in pEGFP-C2

concentration 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 **Negative control** Open data link

Any tissue or cell sample that has been engineered to express GFP.

Any wild type tissue or cellular sample. Please follow this this link to OSF

Target information

Other names EGFP, green fluorescent protein, EYFP

UniProt ID P42212 **GFP** Gene name

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.

Target function None. Used widely in research to visualise specific proteins through GFP-tagged recombinant

constructs.

NA

Processing Post translational

NA modifications

human)

Homology (compared to NA

Similar proteins

EGFP (enhanced GFP, 26.9kDa) and YFP (yellow fluorescent protein, 26.4kDa) are both extremely

NA

Epitope homology (between

species)

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 guery
- Sodium/hydrogen exchanger 11 (Human) 80% identity across 55% of the guery.

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 **Shipping Conditions** -20°C

Important

On ice

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

PubMedID 18691124

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