Reagents to Support Assay Development with HuCAL® Antibodies

Human Combinatorial Antibody Library (HuCAL) Fab and immunoglobulin (Ig) antibodies are suitable for use in a diverse range of immunoassays. Typical applications include ELISA, flow cytometry, immunofluorescence, immunohistochemistry, and western blotting, as well as various functional assays.

This guide provides a compilation of reagents that have been tested and qualified in-house for use with HuCAL antibodies.

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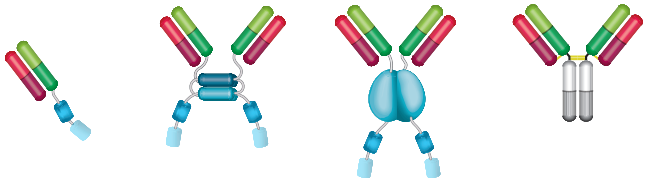

Suggested protocols, examples, and procedures, as well as a detailed information about our recombinant antibody technology can be found in our HuCAL Antibodies Technical Manual or by visiting **bio-rad-antibodies.com/HuCAL**.

1. Anti-Human Secondary Antibodies

HuCAL antibodies in Fab format can be detected by the goat anti-human Fab antibodies shown below. HuCAL antibodies in Ig format can be detected in addition by secondary antibodies specific for the corresponding antibody Fc domain.

Host and Specificity	Catalog #
Goat Anti-Human $F(ab')_2$	STAR126
Goat Anti-Human $F(ab')_2$, HRP	STAR126P
Goat Anti-Human $F(ab')_2$, AP	STAR126A
Goat Anti-Human $F(ab')_2$, Biotin	STAR126B
Goat Anti-Human $F(ab')_2$, FITC	STAR126F
Goat Anti-Human $F(ab')_2$, TRITC	STAR126TRC
Goat Anti-Human (H + L), $F(ab')_2$ fragment, RPE	STAR97PE
Goat Anti-Human Kappa Light Chain	STAR127
Goat Anti-Human Kappa Light Chain, HRP	STAR127P
Goat Anti-Human Kappa Light Chain, FITC	STAR127F
Goat Anti-Human Kappa Light Chain, $F(ab')_2$ fragment	STAR128
Goat Anti-Human Kappa Light Chain, HRP $F(ab')_2$ fragment	STAR128P
Goat Anti-Human Kappa Light Chain, RPE $F(ab')_2$ fragment	STAR128PE
Goat Anti-Human Lambda Light Chain	STAR129
Goat Anti-Human Lambda Light Chain, HRP	STAR129P
Goat Anti-Human Lambda Light Chain, FITC	STAR129F
Mouse Anti-Human IgG, Fc specific	MCA647G
Mouse Anti-Human IgG, Fc specific, HRP	MCA647P
Mouse Anti-Human IgG, Fc specific, FITC	MCA647F

2. HuCAL Positive Control Antibodies

Specificity	Catalog #	Format[1]	Applications[2]
Anti-Human CD81	HCA086	Fab-dHLX-MH	FC
Anti-Human CD127	HCA145	Fab-dHLX-FSx2	FC
Anti-Human Cyclophilin A	HCA005	Fab-dHLX-MH	WB
Anti-Human Actin beta	HCA147	Fab-dHLX-MSx2	WB
Anti-Human Desmin	HCA023	Fab-dHLX-MH	IHC-F, IHC-P
Anti-Human Vimentin	VMA00008	Fab-dHLX-MH	IHC-F, IHC-P
Anti-Ki-67	HCA006	Fab-dHLX-MH	IHC-F, IF/ICC, IHC-P
Anti-Ki-67	HCA053	h/m IgG1	IHC-F, IHC-P
Anti-Human ADAP	HCA092	Fab-dHLX-MH	IP
Anti-Human CD292	HCA004	Fab-S	FN
Anti-IFN Gamma (capture Ab)	HCA043	Fab-dHLX-MH	E
Anti-IFN Gamma (detection Ab)	HCA044	Fab-A-FH	E

(1) For format and tag descriptions see our document 'Choosing the Best HuCAL Antibody Format'
(**2) Applications:** E, ELISA; FC, flow cytometry; FN, functional assay; IF/ICC, immunofluorescence/ immunocytochemistry; IHC-F, immunohistochemistry-frozen (Cryostat); IHC-P, immunohistochemistry-paraffin; IP, immunoprecipitation; WB, western blotting.

3. HuCAL Negative Control Antibodies – Fab Formats

Catalog #	Format[1]	Applications[2]
HCA124	Fab-H	E
HCA045	Fab-FH	E
TZA003	Fab-F-Spy2-H	E
HCA051	Fab-MH	E
HCA101A	Fab-FSx2	E
HCA097A	Fab-dHLX-FH	E
HCA052	Fab-dHLX-MH	E
HCA104	Fab-dHLX-FSx2	E
HCA102	Fab-dHLX-MSx2	E
HCA096	Fab-A-FH	E
HCA107	Fab-A-FSx2	E
HCA269	Fab-Max-FH	E

(**1) For format and tag descriptions see our document 'Choosing the Best HuCAL Antibody Format'**
(2) Applications: E, specificity ELISA; HuCAL Fab format negative controls are tested by ELISA for specificity to GFP, but have not been tested in other applications; they are suggested for use as negative control reagents when using other HuCAL antibodies of the same Fab format.

If the negative control you require is not listed in the table, please contact us to discuss availability.

4. HuCAL Negative Control Antibodies – Full Immunoglobulin Formats

Catalog #	Format	Applications[1]
HCA189	hIgA1 / kappa	E
HCA172	hIgA1 / lambda	E
HCA190	hIgE / kappa	E
HCA171	hIgE / lambda	E
HCA192	hIgG1 / kappa allotype G1m3	E
HCA319	hIgG1 / kappa allotype G1m17,1	E
HCA049	hIgG1 / lambda allotype G1m3	E
HCA318	hIgG1 / lambda allotype G1m17,1	E
HCA193	hIgG2 / kappa	E
HCA108	hIgG2 / lambda	E
HCA337	hIgG2/4 / kappa	E
HCA194	hIgG3 / kappa	E
HCA178	hIgG3 / lambda	E
HCA195	hIgG4 / kappa	E
HCA050	hIgG4 / lambda	E
HCA247	hIgG4 proline mutation / kappa[2]	E
HCA246	hIgG4 proline mutation / lambda[2]	E
HCA191	hIgM / kappa	E
HCA170S	hIgM / lambda	E

(1) Applications: E, Specificity ELISA; HuCAL immunoglobulin negative controls are tested by ELISA for specificity to GFP, but have not been tested in other applications; they are suggested for use as negative control reagents when using other antibodies of the same isotype.
(2) This antibody has a mutation S228P in the core hinge region that prevents the formation of IgG4 half molecules.

5. Anti-Tag Secondary Antibodies

Host and Specificity	Catalog #	Tag Detected[1]
Human Anti-Bacterial Alkaline Phosphatase, HRP	HCA275P	Alkaline phosphatase domain
Human Anti-Bacterial Alkaline Phosphatase, FITC	HCA275F	Alkaline phosphatase domain
Mouse Anti-Strep-tag Immo	MCA2488	Sx, Sx2
Mouse Anti-Strep-tag Classic	MCA2489	S, Sx, Sx2
Mouse Anti-Strep-tag Classic, HRP	MCA2489P	S, Sx, Sx2
Mouse Anti-His-6-tag	MCA1396	H
Mouse Anti-His-6-tag, HRP	MCA5995P	H
Mouse Anti-His-6-tag, Biotin	MCA1396B	H
Mouse Anti-His-6-tag, FITC	MCA1396F	H
Mouse Anti-His-6-tag, Alexa Fluor 488	MCA1396A488	H
Mouse Anti-His-6-tag, Alexa Fluor 647	MCA1396A647	H
Mouse Anti-V5-tag	MCA1360GA	V5
Mouse Anti-V5-tag, HRP	MCA1360P	V5
Mouse Anti-V5-tag, AP	MCA1360A	V5
Mouse Anti-V5-tag, Biotin	MCA1360B	V5
Mouse Anti-V5-tag, FITC	MCA1360F	V5
Mouse Anti-V5-tag, Alexa Fluor 488	MCA1360A488	V5
Mouse Anti-V5-tag, Alexa Fluor 647	MCA1360A647	V5
Mouse Anti-c-myc-tag (clone 9E10)	MCA2200GA	M
Mouse Anti-c-myc-tag (clone 9E10), HRP	MCA2200P	M
Mouse Anti-c-myc-tag, AP	MCA2200A	M
Mouse Anti-c-myc-tag, Biotin	MCA2200B	M
Mouse Anti-c-myc-tag, FITC	MCA2200F	M
Mouse Anti-c-myc-tag, RPE	MCA2200PE	M
Mouse Anti-c-myc-tag, Alexa Fluor 488	MCA2200A488	M
Mouse Anti-c-myc-tag, Alexa Fluor 647	MCA2200A647	M
Rat Anti-DYKDDDDK-tag	MCA4764	F
Rat Anti-DYKDDDDK-tag, HRP	MCA4764P	F
Rabbit Anti-DYKDDDDK-tag	AHP1074	F
Rabbit Anti-DYKDDDDK-tag, HRP	AHP1074P	F

(1) For format and tag descriptions see our document 'Choosing the best HuCAL Antibody Format'

6. Buffers and Substrates

Reagent	Catalog #
Antibody Diluent	BUF014
HISPEC Assay Diluent	BUF049
Peroxide Blocking Reagent	BUF017B
Streptavidin-AP	STAR6B
Streptavidin-HRP	STAR5B
Streptavidin-RPE	STAR4A
TMB Core Plus	BUF062A

7. Antibody Labeling – LYNX Rapid Conjugation Kits

HuCAL primary antibodies can be directly labeled with biotin, fluorescent dyes, and enzymes via chemical coupling in the same manner as conventional antibodies. Our LYNX kits offer a fast and simple conjugation procedure which requires no purification steps and provides assay sensitivities equal to those achieved with typical secondary antibodies.

Label Type	Options
Enzyme	Alkaline phosphatase (AP) Horseradish peroxidase (HRP)
Single Dyes	Allophycocyanin (APC) Cy3 Cy5 DyLight488 DyLight550 DyLight650 Fluorescein PerCP Rhodamine RPE
Tandem Dyes	APC-Cy7 PerCP-Cy5.5 RPE-Cy5 RPE-Cy5.5 RPE-Cy7 RPE-Texas Red
Other	Biotin Streptavidin

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