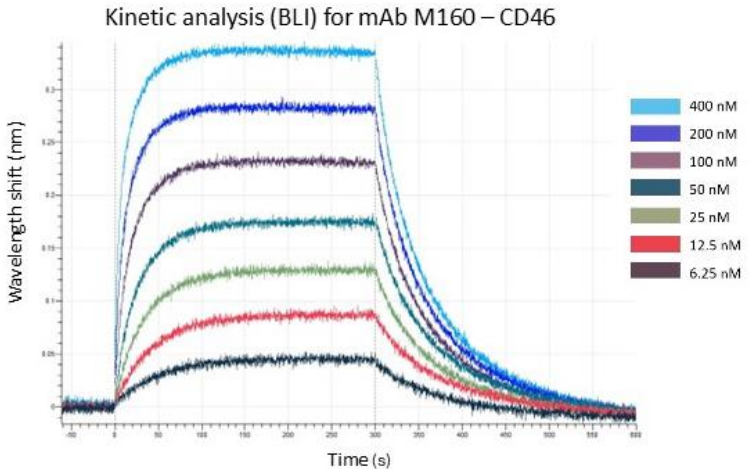
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

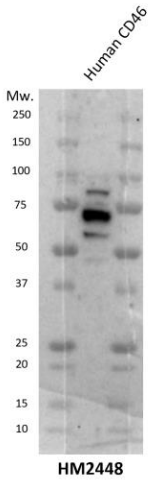
Product name	CD46 (MCP), Human, mAb, M160		
Catalog number	HM2448-100UG		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.02%NaN3+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	x.x EU/mg	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	BLI	W
Reference #				1-2	1-3-5-6	1	1-3-4		1-2
Yes				●	●	●	●	●	●
No									
N.D.	●	●	●						

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; BLI = Bio-layer Interferometry, W = Western blot





Protein	Ka (1/Ms)	Kdis (1/s)	KD (M)	R^2
CD46	3.5E05	1.7E-02	4.9E-08	0.997

BLI: The kinetic parameters of antibody HM2448 were determined for CD46 using BLI (Octet R8). The HM2448 antibody was immobilized on the sensors and kinetic parameters were measured against the protein in solution. Curve fitting and calculations of kinetic parameters were executed in a 1:1 model using the Octet Analysis Studio Software version 13.0.2.46. The graph represents the association-dissociation curves for HM2448 against CD46.

W: A reduced sample treatment and SDS-Page was used. Multiple bands are seen between 100 and 50 kDa. For this antibody signals are observed for the native CD46 protein derived from the HeLa cell lysate. These bands can be explained by the multiple glycosylation patterns of the CD46 protein.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

General Information

Description

The monoclonal antibody M160 recognizes CD46, also designated membrane cofactor protein (MCP). CD46 is a 45-70 kDa protein with genetic and tissue-specific heterogeneity. It is expressed on every cell and tissue, with the exception of erythrocytes. CD46 serves to inhibit complement activation on host tissue. It performs this function by serving as a cofactor which binds to C3b and C4b. This binding is permitted by factor I, a serine protease of plasma, to degrade C3b and C4b and serves to protect the host cell against autologous attack. It also serves as a receptor for measles virus. Four isoforms of CD46 predominate and arise by alternative splicing of a single CD46 gene. CD46 cDNA encodes a signal sequence followed by four complement control protein domains (also called short consensus repeats (SCR)). The monoclonal antibody M160 reacts with the SCR2 domain.

Immunogen

Purified MCP

Aliases

Membrane cofactor protein, MCP, TLX, Trophoblast leukocyte common antigen

Cross reactivity

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References

1. Seya, T et al; Quantitative analysis of membrane cofactor protein (MCP) of complement. High expression of MCP on human leukemia cell lines, which is downregulated during cell differentiation. J Immunol 1990, 145: 238
2. Iwata, K et al; Diversity of sites for measles virus binding and for inactivation of complement C3b and C4b on membrane cofactor protein CD46. J Biol Chem 1995,270: 15148
3. Kurita-Taniguchi, M et al; Functional modulation of human macrophages through CD46 (Measles virus receptor): production of IL-12 p40 and nitric oxide in association with recruitment of protein-tyrosine phosphatase SHP-1 to CD46. J Immunol 2000, 165: 5143
4. Kurita-Taniguchi, M et al; Molecular assembly of CD46 with CD9, alpha3-beta1 integrin and protein tyrosine phosphatase SHP-1 in human macrophages through differentation by GM-CSF. Mol Immunol 2001, 38: 689
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6. Kato, S et al. Reduced ability of hemagglutinin of the the CAM-70 measles virus vaccine strain to use receptors CD46 and SLAM. Vaccine 2009, 27:3838
7. Matsui, H et al. Enhanced transduction efficiency of fiber-substituted adenovirus vectors by the incorporation of RGD peptides in two distict regions of the adenovirus serotype 35 fiber knob. Virus research 2010,
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9. Adams, W et al. Attenuation of CD4+ T-cell function by human adenovirus type 35 is mediated by the knob protein. Journal of General Virology 2012, 93:1339
10. Johnson, M et al. Type I IFN Induced by Adenovirus Serotypes 28 and 35 Has Multiple Effects on T Cell Immunogenicity. Journal of Immunology 2012, 188:6109

Storage&stability

Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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Date

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