

Datasheet: MCA1880

Description:	MOUSE ANTI HUMAN CD6
Specificity:	CD6
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-98
Isotype:	lgG1
Quantity:	0.2 mg

# **Product Details**

**RRID** AB\_322232

## **Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <a href="https://www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			1/25 - 1/100
Immunohistology - Frozen				
Immunohistology - Paraffin				
ELISA			•	
Immunoprecipitation	•			
Western Blotting	•			Non-reducing conditions

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	lgG concentration 1.0mg/ml
Immunogen	Purified CD6 antigen
External Database	

**UniProt:** 

P30203 Related reagents

#### **Entrez Gene:**

923 CD6 Related reagents

#### **Fusion Partners**

Spleen cells from immunised mice.

#### **Specificity**

Mouse anti Human CD6 antibody, clone MEM-98 recognizes human CD6, also known as T12 or TP120. CD6 is a ~100-130 kDa type 1 single pass trans-membrane protein member of the immunoglobulin superfamily. CD6 possesses 3 scavenger receptor cysteine rich (SRCR) domains in it's extracellular sequence. The membrane proximal SRCR3 contains the epitope responsible for interaction with CD166, also known as Activated Leukocyte Cell Adhesion Molecule (ALCAM) or CD166.

Multiple gene transcripts have been detected encoding CD6 in man resulting in the production of a number of CD6 isoforms. Mouse anti human CD6, clone MEM-98 recognizes an external epitope located in the membrane-distal SRCR domain 1 and is expected to recognize all CD6 isoforms so far identified, CD6A-E.

CD6 has been implicated as a therapeutic target for a number of autoimmune conditions (<u>Pinto et al. 2013</u>) including Sjögren's syndrome (<u>Ramos-Casals et al. 2001</u>), rheumatoid arthritis (<u>Rodriguez et al.</u>) and psoriasis (<u>Wilsmann-Theis et al. 2006</u>).

## Flow Cytometry

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells or 100ul whole blood

#### References

- 1. Bazil, V. *et al.* (1989) Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. <u>Folia Biol (Praha)</u>. 35 (5): 289-97.
- 2. Nair, P. *et al.* (2010) CD6 synergistic co-stimulation promoting proinflammatory response is modulated without interfering with the activated leucocyte cell adhesion molecule interaction. Clin Exp Immunol. 162 (1): 116-30.
- 3. Castro, M.A. *et al.* (2007) Extracellular isoforms of CD6 generated by alternative splicing regulate targeting of CD6 to the immunological synapse. <u>J Immunol.</u> 178 (7): 4351-61.
- 4. Hassan, N.J. *et al.* (2006) CD6 regulates T-cell responses through activation-dependent recruitment of the positive regulator SLP-76. Mol Cell Biol. 26 (17): 6727-38.
- 5. Bughani, U. *et al.* (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itolizumab. PLoS One. 12 (7): e0180088.
- 6. Garner, L.I. *et al.* (2018) CD6 mAbs differ in epitope, kinetics and mechanism of action. <u>Immunology. May 17 [Epub ahead of print].</u>

#### **Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

### Guarantee

18 months from date of despatch.

# Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf

# Related Products

# **Recommended Secondary Antibodies**

Goat Anti Mouse IgG IgA IgM (STAR87...) Alk. Phos., HRP

Goat Anti Mouse IgG (STAR77...) HRP

Rabbit Anti Mouse IgG (STAR12...) RPE

Rabbit Anti Mouse IgG (STAR8...) <u>DyLight®800</u>

Rabbit Anti Mouse IgG (STAR13...)

Goat Anti Mouse IgG (STAR76...)

Goat Anti Mouse IgG (STAR70...)

FITC

Goat Anti Mouse IgG (Fc) (STAR120...)

Rabbit Anti Mouse IgG (STAR9...)

FITC

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®549,

Worldwide

DyLight®649, DyLight®680, DyLight®800,

FITC, HRP

# **Recommended Negative Controls**

### MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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