

# Datasheet: VMA00037KT

Description:	CD71 (SOLUBLE) ANTIBODY WITH CONTROL LYSATE		
Specificity:	CD71 (SOLUBLE)		
Other names:	Transferrin Receptor		
Format:	Purified		
Product Type:	PrecisionAb™ Monoclonal		
Isotype:	lgG2a		
Quantity:	2 Westerns		

## **Product Details**

#### **Applications**

**Specificity** 

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="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting				1/1000

**PrecisionAb antibodies have been extensively <u>validated for the western blot application</u>. The antibody has been validated at the suggested dilution. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependant on sample type.** 

Target Species	Human		
Product Form	Purified IgG - liquid		
Preparation	20µl Mouse monoclonal antibody purified by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )		
Immunogen	Purified human soluble transferrin receptor		
External Database Links	UniProt:  P02786 Related reagents  Entrez Gene:  7037 TFRC Related reagents		

**Mouse anti Human CD71 (soluble) antibody** recognizes the human soluble transferrin receptor (sTfR) also known as sCD71 or p90. CD71 is a single pass type II membrane glycoprotein of ~90

kDa containing a single protease associated domain. sCD71 forms a homodimeric complex, a truncated form of the membrane bound transferrin receptor lacking the cytoplasmic and transmembrane regions of the molecule (Shih et al. 1990). It is responsible for the uptake of iron into the cell by binding to and internalizing iron-bound transferrin (Kogan et al. 2005). After the iron is released into the cell the apotransferrin is relocated to the cell surface, cleaved at Arg-100 and released into the circulation. In healthy adults almost all transferrin receptors exist in the soluble form (Shih et al. 1993). The level of soluble CD71 is used to detect erythropoietin misuse by athletes (Borrione et al. 2007). It is also used to diagnose iron deficiency anemia (Kamer et al. 2012).

Mouse anti Human soluble CD71 recognizes human both the soluble transferrin receptor and the complex between soluble transferrin receptor and transferrin. The antibody recognizes CD71 as a single band of ~90 kDa in multiple human cell line lysates by western blotting under reducing conditions.

Western Blotting	Anti CD71 (soluble) antibody detects a band of approximately 90 kDa in K562 cell lysates.
Instructions For Use	Please refer to the <u>PrecisionAb western blotting protocol.</u> For additional information on secondary antibody dilution and exposure time see product web page.
Lysate Composition	400μg K562 lysate lyophilized in RIPA buffer.
Lysate Reconstitution	- If using DDT reconstitute the lyophilized lysate with 190 $\mu$ l DI H $_2$ O, add 200 $\mu$ l 2x Laemmli Sample Buffer and 10 $\mu$ l 2M DTT.
	- If using BME reconstitute the lyophilized lysate with 180 $\mu$ l DI H <sub>2</sub> O, add 200 $\mu$ l 2x Laemmli Sample Buffer and 20 $\mu$ l BME.
	Heat at 95°C for 5 minutes. For 10 well mini gels load 25µl. For other gel and comb formats please refer to the PrecisionAb western blotting protocol.
Storage	Antibody: Store undiluted at -20°C, avoiding repeated freeze thaw cycles.
	Lysate: Store lyophilized lysate at -20°C. After reconstitution aliquot and store at -20°C for up to 3 months or at -80°C for longer term storage.
Guarantee	As supplied, 12 months from date of despatch.
Acknowledgements	PrecisionAb™ is a trademark of Bio-Rad Laboratories.
Health And Safety Information	Material Safety Datasheet documentation #10040 #10561 available at: Antibody (10040): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> Lysate Material (10561): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf</a>
Regulatory	For research purposes only

### Related Products

**Recommended Secondary Antibodies** 

Goat Anti Mouse IgG (H/L) (STAR207...) HRP

**Recommended Negative Controls** 

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

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