

Datasheet: MCA5692GA

Description:	MOUSE ANTI HUMAN SULFATASE 2 (C-TERMINAL)
Specificity:	SULFATASE 2 (C-TERMINAL)
Other names:	SULF-2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2B4
Isotype:	lgG1
Quantity:	0.1 mg

## **Product Details**

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

	Yes	No	<b>Not Determined</b>	<b>Suggested Dilution</b>
Flow Cytometry				
Immunohistology - Frozen			•	
Immunohistology - Paraffin (1)	•			
ELISA	-			
Western Blotting	•			

Where this product 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 product for use in their own system using appropriate negative/positive controls.

(1)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species	Human		
Species Cross Reactivity	Reacts with: Mouse  N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.		
Product Form	Purified IgG - liquid		

Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant	
Buffer Solution	Phosphate buffered saline.	
Preservative Stabilisers	0.09% Sodium Azide.	
Carrier Free	Yes	
Approx. Protein Concentrations	IgG concentration 1.0mg/ml	
Immunogen	Recombinant human Sulf-2.	
External Database Links	UniProt:  Q8IWU5 Related reagents Q8CFG0 Related reagents	
	Entrez Gene:  55959 SULF2 Related reagents  72043 Sulf2 Related reagents	
Synonyms	KIAA1247	
RRID	AB_10707932	
Specificity	Mouse anti Human Sulfatase 2 (C-Terminal) antibody, clone 2B4 recognizes an epitope within the C-terminal (CT) subunit of Sulfatase 2 (Sulf-2). Sulf-2 is a novel extracellular heparan sulfate 6-O-endosulfatase, which selectively removes the critical sulfate group from the polysaccharide side chain of heparan sulfate proteoglycans, major components of the extracellular matrix, involved in cell differentiation, proliferation and migration. Sulf-2 acts as a modulator of several signalling proteins including Wnt proteins, bone morphogenetic proteins (BMPs) and fibroblast growth factors (FGFs), and is a direct transcriptional target of p53. Sulf-2 is linked with several cancers, including breast, hepatocellular, pancreatic and non-small-cell lung carcinomas (Lemjabbar-Alaoui et al. 2010).	
	Mature human Sulf-2 is a heterodimer consisting of a 50 kDa C-terminal subunit, essential for both glucosamine 6-O-sulfate-endosulfatase and arylsulfatase activity, and a 75 kDa N-terminal subunit which contains the catalytic centre.	
	Mouse anti Human Sulfatase 2 (C-Terminal) antibody, clone 2B4 recognizes Sulfatase 2, showing no cross-reactivity with Sulfatase 1 in either human or mouse.	
Histology Positive Control Tissue	Sulf-2 transfected HEK29 cells or non-small-cell lung carcinoma.	

Western	Blotting

Mouse anti Human sulfatase 2 antibody, clone 2B4 detects a major band of ~50kDa in Sulf-2 transfected HEK293 cell lysates. A band at 135kDa (unprocessed protein), and a fragment at 37kDa, may also be present.

#### References

- 1. Lemjabbar-Alaoui, H. *et al.* (2010) Sulf-2, a heparan sulfate endosulfatase, promotes human lung carcinogenesis. <u>Oncogene</u>. 29 (5): 635-46.
- 2. Lui NS *et al.* (2012) SULF2 expression by immunohistochemistry and overall survival in oesophageal cancer: a cohort study. BMJ Open. 2 (6): pii: e001624.
- 3. Phillips, J.J. *et al.* (2012) Heparan sulfate sulfatase SULF2 regulates PDGFR $\alpha$  signaling and growth in human and mouse malignant glioma. <u>J Clin Invest. 122 (3):</u> 911-22.
- 4. Alhasan, S.F. *et al.* (2016) Sulfatase-2: a prognostic biomarker and candidate therapeutic target in patients with pancreatic ductal adenocarcinoma. <u>Br J Cancer. 115 (7):</u> 797-804.

### **Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5692GA">https://www.bio-rad-antibodies.com/SDS/MCA5692GA</a> 10040
Regulatory	For research purposes only

## Related Products

### **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...)

RPE

Goat Anti Mouse IgG (STAR70...)

RITC

Rabbit Anti Mouse IgG (STAR13...)

HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) <u>FITC</u>
Goat Anti Mouse IgG (STAR77...) <u>HRP</u>

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

# **Recommended Negative Controls**

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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То

batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M433947:250116'

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