

Datasheet: MCA1391

**BATCH NUMBER 167467**

<b>Description:</b>	MOUSE ANTI HEPATITIS B X ANTIGEN
<b>Specificity:</b>	HEPATITIS B X ANTIGEN
<b>Other names:</b>	HBxAg
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	3F6-G10
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.25 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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			1/100
Immunohistology - Paraffin	▪			1/100
ELISA	▪			
Immunoprecipitation			▪	

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.

<b>Target Species</b>	Viral
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	1% bovine serum albumin

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	HB-Xag-Protein A Fusion protein.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P03165</a> <a href="#">Related reagents</a>
<b>RRID</b>	AB_322083
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the <a href="#">Sp-2/0-Ag14</a> mouse myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Hepatitis B-X antibody, clone 3F6-G10</b> recognizes the HB-X antigen of hepatitis virus. The Hepatitis B X antigen is a 154 amino acid ~17 kDa multifunctional protein involved in the development of liver cirrhosis and hepatocellular carcinoma (<a href="#">UniProt: P03165</a>).</p> <p>Mouse anti Hepatitis B-X antibody, clone 3F6-G10 was produced by immunization of mice with a "HB-X- Protein A" fusion construct and subsequent screening of hybridoma products against a "HB-X-GST" fusion construct (<a href="#">Marczinovits et al. 1997</a>).</p> <p>Mouse anti Hepatitis B-X antibody, clone 3F6-G10 has been used successfully for the detection of the hepatitis B X antigen by immunohistochemistry in formalin fixed, paraffin embedded material, also by western blotting against the immunizing and screening fusion proteins (<a href="#">Pál et al. 2001</a>). Subsequently clone 3F6-G10 has been used as a capture reagent in a sensitive sandwich ELISA and bead based flow assay for the quantitative assessment of HbX antigen in human sera (<a href="#">Pál et al. 2005</a>).</p> <p>Fine epitope mapping by phage library screening indicates that the epitope recognized by Mouse anti Hepatitis B-X antibody, clone 3F6-G10 lies between amino acids 88 and 93 of the X antigen, a result subsequently confirmed by peptide ELISA (<a href="#">Pál et al. 2003</a>).</p>
<b>Histology Positive Control Tissue</b>	Liver carcinoma/Hepatitis B infected liver.
<b>References</b>	<ol style="list-style-type: none"> <li>Chun, E. <i>et al.</i> (2003) Tumor eradication by hepatitis B virus X antigen-specific CD8+ T cells in xenografted nude mice. <a href="#">J Immunol. 170: 1183-90.</a></li> <li>Pál, J. <i>et al.</i> (2003) Determination of the fine epitope specificity of an anti-hepatitis B virus X protein monoclonal antibody using microanalytical and molecular biological methods. <a href="#">Mol Immunol. 40: 241-6.</a></li> <li>Pál, J. <i>et al.</i> (2005) Sandwich type ELISA and a fluorescent cytometric microbead assay for quantitative determination of hepatitis B virus X antigen level in human sera. <a href="#">J Immunol Methods. 306: 183-92.</a></li> <li>Pál, J. <i>et al.</i> (2006) Comprehensive regression analysis of hepatitis B virus X antigen level and anti-HBx antibody titer in the sera of patients with HBV infection. <a href="#">Pathol Oncol Res. 12: 34-40.</a></li> </ol>

5. Lei, J.H. *et al* (2007) Effects of HBV X gene and arsenic trioxide on the expression of p53 in cultured HepG2 cells. [Chin Med J 120: 2181-4.](#)
6. Cheng, P. *et al.* (2009) Hepatitis B virus X protein (HBx) induces G2/M arrest and apoptosis through sustained activation of cyclin B1-CDK1 kinase [Oncol Rep. 22: 1101-7.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1391>  
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**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

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

Goat Anti Mouse IgG (STAR76...) [RPE](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#), [DyLight®650](#), [DyLight®680](#), [DyLight®800](#), [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
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