

Datasheet: MCA1391

BATCH NUMBER 160562

Description:	MOUSE ANTI HEPATITIS B X ANTIGEN
Specificity:	HEPATITIS B X ANTIGEN
Other names:	HBxAg
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	3F6-G10
Isotype:	IgG2b
Quantity:	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.

	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.

Target Species	Viral
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G.
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide
Stabilisers	0.1% Bovine Serum Albumin
Approx. Protein	IgG concentration 1.0 mg/ml

Concentrations

Immunogen HB-Xag-Protein A Fusion protein.

External Database Links

UniProt:
[P03165](#) [Related reagents](#)

RRID AB_322083

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the [Sp-2/0-Ag14](#) mouse myeloma cell line.

Specificity

Mouse anti Hepatitis B-X antibody, clone 3F6-G10 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 ([UniProt: P03165](#)).

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 ([Marczinovits et al. 1997](#)).

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 ([Pál et al. 2001](#)). 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 ([Pál et al. 2005](#)).

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 ([Pál et al. 2003](#)).

Histology Positive Control Tissue

Liver Carcinoma/Hepatitis B infected liver.

References

1. Pál, J. *et al.* (2001) Immunohistochemical assessment and prognostic value of hepatitis B virus X protein in chronic hepatitis and primary hepatocellular carcinomas using anti-HBxAg monoclonal antibody. [Pathol Oncol Res. 7: 178-84.](#)
2. 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.](#)
3. Pál, J. *et al.* (2003) Determination of the fine epitope specificity of an anti-hepatitis B virus X protein monoclonal antibody using microanalytical and molecular biological methods. [Mol Immunol. 40: 241-6.](#)
4. Pál, J. *et al.* (2005) Sandwich type ELISA and a fluorescent cytometric microbead assay for quantitative determination of hepatitis B virus X antigen level in human sera. [J Immunol Methods. 306: 183-92.](#)
5. 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.](#)
 6. Chun, E. *et al.* (2003) Tumor eradication by hepatitis B virus X antigen-specific CD8+ T cells in xenografted nude mice. [J Immunol. 170: 1183-90.](#)
 7. Pál, J. *et al.* (2006) Comprehensive regression analysis of hepatitis B virus X antigen level and anti-HBx antibody titer in the sera of patients with HBV infection. [Pathol Oncol Res. 12: 34-40.](#)

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 #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1391>
10041

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 (STAR70...)	FITC
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR76...)	RPE
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 (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

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