

Datasheet: MCA5976

Description:	MOUSE ANTI RAINBOW TROUT Ig
Specificity:	Ig
Format:	Con S/N
Product Type:	Monoclonal Antibody
Clone:	2C7
Isotype:	IgG1
Quantity:	0.5 ml

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	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			

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	Rainbow Trout
Species Cross Reactivity	Reacts with: Chinnoek Salmon, Chum Salmon, Coho Salmon, Sockeye Salmon Does not react with: Atlantic Salmon, Zebrafish N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Tissue Culture Supernatant - liquid (concentrated)
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	Ig concentration 0.2 - 0.5 mg/ml
Immunogen	Rainbow Trout heavy and light chain immunoglobulins
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse NSO myeloma cell line.

Specificity

Mouse anti Rainbow Trout Ig, clone 2C7 recognizes immunoglobulin heavy chain from Rainbow Trout (*Oncorhynchus mykiss*), additionally clone 2C7 recognizes Ig from closely related piscine species belonging to the *Oncorhynchus* genera but not from Atlantic salmon (*Salmo salar*) ([Kibenge, et. al. 2002](#)) or more distantly related species such as Zebra Fish (*Danio rerio*).

Rainbow trout is one of a number of salmonid fish species widely used in the aquaculture industry in many countries. As with other farmed salmonid species, the close proximity of many individuals in a confined area leads to increased incidences of disease caused by a range of fungal, protozoan, bacterial and viral pathogens. The development of vaccine and treatment regimes is essential to combat these infections.

Clone 2C7 may be used to detect bacterial and viral infections in trout and salmon, and to identify the presence of unknown parasites indirectly by measurement and monitoring of serum immunoglobulins. Monoclonal antibodies specific to salmonid Ig have been demonstrated to be of use in measuring the efficacy of salmonid vaccines ([Rømer Villumsen, et. al. 2012](#) and [Chettri, et. al. 2013](#)).

References

1. Kibenge, M.T (2002) Serological evidence of infectious salmon anaemia virus (ISAV) infection in farmed fishes, using an indirect enzyme-linked immunosorbent assay (ELISA). [Dis. Aquat. Org. 51: 1-11.](#)

Further Reading

1. Raida, M.K. *et al.* (2011) Association between plasma antibody response and protection in rainbow trout *Oncorhynchus mykiss* immersion vaccinated against *Yersinia ruckeri*. [PLoS One. 6: e18832.](#)
2. von Gersdorff Jørgensen, L. *et al.* (2011) Experimental evidence for direct in situ binding of IgM and IgT to early trophonts of *Ichthyophthirius multifiliis* (Fouquet) in the gills of rainbow trout, *Oncorhynchus mykiss* (Walbaum). [J Fish Dis. 34: 749-55.](#)
3. Rømer Villumsen, K. *et al.* (2012) Potential Role of Specific Antibodies as Important Vaccine Induced Protective Mechanism against *Aeromonas salmonicida* in Rainbow Trout. [PLoS One. 7\(10\): e46733.](#)
4. Skov, J. *et al.* (2012) Immunomodulatory effects of dietary β -1,3-glucan from *Euglena gracilis* in rainbow trout (*Oncorhynchus mykiss*) immersion vaccinated against *Yersinia ruckeri*. [Fish Shellfish Immunol. 33: 111-20.](#)
5. Deshmukh, S. *et al.* (2013) Insight from Molecular, Pathological, and Immunohistochemical Studies on Cellular and Humoral Mechanisms Responsible for Vaccine-Induced Protection of Rainbow Trout against *Yersinia ruckeri*. [Clin Vaccine Immunol. 20: 1623-41.](#)
6. Chettri, J.K. *et al.* (2013) Comparative evaluation of administration methods for a vaccine protecting rainbow trout against *Yersinia ruckeri* O1 biotype 2 infections. [Vet Immunol Immunopathol. 154: 42-7.](#)
7. von Gersdorff Jørgensen, L. *et al.* (2012) Approaches towards DNA vaccination against a skin ciliate parasite in fish. [PLoS One. 7: e48129.](#)
8. Holten-Andersen, L. *et al.* (2012) Determining vaccination frequency in farmed rainbow trout using *Vibrio anguillarum* O1 specific serum antibody measurements. [PLoS One. 7: e49672.](#)

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.

Shelf Life

18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation available at:
Material Safety Datasheet Documentation #10053 available at:
<https://www.bio-rad-antibodies.com/uploads/MSDS/10053.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Human Anti Mouse IgG1 (HCA036...) [HRP](#)

Recommended Useful Reagents

[MOUSE ANTI SALMONID Ig \(MCA2182\)](#)

[RABBIT ANTI SALMONID Ig \(AHP761\)](#)

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