

Datasheet: MCA2182

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|----------------------|------------------------|
| Description: | MOUSE ANTI SALMONID Ig |
| Specificity: | Ig (SALMONID) |
| Format: | Con S/N |
| Product Type: | Monoclonal Antibody |
| Clone: | 5F12 |
| Isotype: | IgG2a |
| 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 | | ▪ | | |
| Immunohistology - Resin | | ▪ | | |
| ELISA | ▪ | | | 1/250 - 1/1000 |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 1/250 - 1/1000 |
| Immunofluorescence | ▪ | | | |

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

| | | | | | | | | | | |
|---------------------------------|---|--------------------------|----------------------------|--------------------------|-----------------|----------------|-------------|-------------|-------------|-------------|
| Target Species | Fish | | | | | | | | | |
| Product Form | Tissue Culture Supernatant - liquid (concentrated) | | | | | | | | | |
| Preservative Stabilisers | 0.09% Sodium Azide | | | | | | | | | |
| Immunogen | Rainbow trout and Atlantic salmon immunoglobulins. | | | | | | | | | |
| Fusion Partners | Spleen cells from immunised Balb/c mice were fused with cells of the mouse NS0 myeloma cell line. | | | | | | | | | |
| Specificity | <p>Mouse anti Salmonid Ig monoclonal antibody, clone 5F12 recognizes salmonid immunoglobulin heavy chain, binding to Immunoglobulins of several genera of the subfamily <i>Salmoninae</i>, including:</p> <table border="0"> <tr> <td><i>Salmo</i></td> <td><i>Oncorhynchus</i></td> <td><i>Salvelinus</i></td> </tr> <tr> <td>Atlantic Salmon</td> <td>Chinook Salmon</td> <td>Arctic Char</td> </tr> <tr> <td>Brown Trout</td> <td>Chum Salmon</td> <td>Brook Trout</td> </tr> </table> | <i>Salmo</i> | <i>Oncorhynchus</i> | <i>Salvelinus</i> | Atlantic Salmon | Chinook Salmon | Arctic Char | Brown Trout | Chum Salmon | Brook Trout |
| <i>Salmo</i> | <i>Oncorhynchus</i> | <i>Salvelinus</i> | | | | | | | | |
| Atlantic Salmon | Chinook Salmon | Arctic Char | | | | | | | | |
| Brown Trout | Chum Salmon | Brook Trout | | | | | | | | |

CohoSalmon
Sockeye Salmon
Rainbow Trout

Binding of Mouse anti Salmonid Ig monoclonal antibody, clone 5F12 to immunoglobulin of the related salmonid subfamilies *Coregoninae* (Whitefish) and *Thymallinae* (Graylings) has not been evaluated. Mouse anti Salmonid Ig monoclonal antibody, clone 5F12 does not appear to bind immunoglobulin of other fish species such as *Siniperca chuatsi* (Mandarin Fish or Chinese Perch) or *Danio rerio* (Zebra fish).

Disease organisms such as *Aeromonas salmonicida*, the causative agent of [furunculosis](#), *Renibacterium salmonarium* which causes [bacterial kidney disease](#) in salmonids and [infectious hematopoietic necrosis](#) virus are major fish health concerns for salmonid aquaculture globally. Mouse anti Salmonid Ig monoclonal antibody, clone 5F12 has been utilized for the evaluation of the immunoglobulin response in multiple studies looking at pathogen and parasite exposure ([Henriksen et al. 2015](#)) and in a number of vaccine studies evaluating vaccine components, administration routes and schedules ([Marana et al. 2017](#)).

Western Blotting

This antibody detects a band of approximately 71 kDa using Salmon immune serum.

References

1. Bakke-McKellep, A.M. et al. (2008) Atlantic salmon (*Salmo salar* L.) parr fed genetically modified soybeans and maize: Histological, digestive, metabolic, and immunological investigations. [Res Vet Sci. 84 \(3\): 395-408.](#)
2. 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.](#)
3. 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.](#)
4. 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. 2012;7\(10\):e46733.](#)
5. 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.](#)
6. 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.](#)
7. 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.](#)
8. von Gersdorff Jørgensen, L. et al. (2012) Approaches towards DNA vaccination against a skin ciliate parasite in fish. [PLoS One. 7: e48129.](#)
9. 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.](#)
10. Cook, M et al. (2008) Amoebic gill disease (AGD) vaccine development phase II - Molecular basis of host parasite interactions in amoebic gill disease. [Aquafin CRC Project 3.4.4\(2\)](#)
11. Villumsen, K.R. et al. (2014) Oral and Anal Vaccination Confers Full Protection against Enteric Redmouth Disease (ERM) in Rainbow Trout. [PLoS One. 9\(4\):e93845.](#)
12. Jaafar, R.M. et al. (2015) Effects of adjuvant Montanide™ ISA 763 A VG in rainbow trout injection vaccinated against *Yersinia ruckeri* [Fish Shellfish Immunol. 47 \(2\): 797-806.](#)
13. Henriksen, M.M.M. et al. (2015) Evaluation of the immune response in rainbow trout fry,

Oncorhynchus mykiss (Walbaum), after waterborne exposure to *Flavobacterium psychrophilum* and/or hydrogen peroxide [Journal of Fish Diseases. 38 \(1\): 55-66.](#)

14. Villumsen, K.R. *et al.* (2015) Adverse and long-term protective effects following oil-adjuvanted vaccination against *Aeromonas salmonicida* in rainbow trout. [Fish Shellfish Immunol. 42: 193-203.](#)

15. 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.](#)

16. Soltani, M. *et al.* (2014) Effect of Montanide™ IMS 1312 VG adjuvant on efficacy of *Yersinia ruckeri* vaccine in rainbow trout (*Oncorhynchus mykiss*). [Fish Shellfish Immunol. 37: 60-5.](#)

17. Chettri, J. K. *et al.* (2015) Booster immersion vaccination using diluted *Yersinia ruckeri* bacterin confers protection against ERM in rainbow trout [Aquaculture. 440: 1-5.](#)

18. Marana, M.H. *et al.* (2016) Positive correlation between *Aeromonas salmonicida* vaccine antigen concentration and protection in vaccinated rainbow trout *Oncorhynchus mykiss* evaluated by a tail fin infection model. [J Fish Dis. Sep 5. \[Epub ahead of print\]](#)

19. Schmidt, J. G. *et al.* (2016) ERM booster vaccination of rainbow trout using diluted bacterin: Field studies [Aquaculture. 464: 262-7.](#)

20. Marana, M.H. *et al.* (2017) Subunit vaccine candidates against *Aeromonas salmonicida* in rainbow trout *Oncorhynchus mykiss*. [PLoS One. 12 \(2\): e0171944.](#)

21. Chettri, J.K. *et al.* (2015) Comparative evaluation of infection methods and environmental factors on challenge success: *Aeromonas salmonicida* infection in vaccinated rainbow trout. [Fish Shellfish Immunol. 44 \(2\): 485-95.](#)

22. Jaafar, R.M. *et al.* (2018) Secondary immune response of rainbow trout following repeated immersion vaccination. [J Fish Dis. 41 \(1\): 117-23.](#)

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 #10055 available at: 10055: <https://www.bio-rad-antibodies.com/uploads/MSDS/10055.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](#)
Human Anti Mouse IgG2a (HCA037...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Recommended Useful Reagents

[MOUSE ANTI RAINBOW TROUT Ig \(MCA5976\)](#)

[MOUSE ANTI INFECTIOUS SALMON ANEMIA VIRUS \(ISAV\) \(MCA5977\)](#)

[MOUSE ANTI FLAVOBACTERIUM PSYCHROPHILUM:FITC \(MCA5978F\)](#)

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

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