

Datasheet: MCA5978F

Description:	MOUSE ANTI FLAVOBACTERIUM PSYCHROPHILUM:FITC
Specificity:	FLAVOBACTERIUM PSYCHROPHILUM
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	FL43
Isotype:	IgG2b
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunofluorescence	■			1/100 - 1/500

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	Bacterial		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein G		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.73 mg/ml		
Immunogen	Outer membrane fractions of <i>F. psychrophilum</i> (wildtype strain CSF 259-95)		
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the Mouse X63-Ag8.6.5.3 myeloma cell line.		
Specificity	Mouse anti <i>Flavobacterium psychrophilum</i>, clone FL43 , recognizes the infectious bacteria		

Flavobacterium psychrophilum, previously designated as *Cytophaga psychrophila* and *Flexibacter psychrophilus*. *F. psychrophillum* is the causative agent of fish disease known under a range names, most commonly as Bacterial cold water disease (BCWD) in America and Rainbow trout fry syndrome (RTFS) in Europe. *F. psychrophilum* has a worldwide distribution where it is responsible for serious disease outbreaks in predominantly freshwater salmonid fish farms and hatcheries resulting in significant economic loss for the aquaculture industry.

While *F. psychrophilum* infections are primarily in young fish, with Rainbow trout and Coho salmon being particularly susceptible, salmonids of all ages are subject to infection. Additionally *F. psychrophilum* has been detected in a range of non salmonids including species from eel, (*Anguilla* sp.), and carp (*Carassius* sp.) families ([Barnes et al. 2011](#)).

While the route of infection is not fully understood, it is believed that infection may in part be from parent to offspring, however it is known that *F. psychrophilum* survives outside its host in an aquatic environment for a considerable time period. Additionally other fish, both inter- and intraspecies can function as a reservoir for infection, particularly dying and dead individuals that have been demonstrated to shed increased levels of bacteria ([Madetoja et al. 2000](#)). Infection results in a range of clinical symptoms including necrosis of tissues in such as the fins, enlarged organs, in particular, the spleen, neurological damage and morphological deformities. Mortality varies widely from 10% to over 75% and it is believed that the variation in mortality may be affected by a combination of factors including, but not limited to, bacterial strain virulence, water temperature, genetic diversity within fish stocks and stress ([Barnes et al. 2011](#)).

Clone FL43 has been shown to be specific for *F. psychrophilum* and does not recognise strains of the closely related *F. columnare*, *F. pectinovorum*, *F. aquatile*, *F. branchiophilum*, and *F. saccharophilum* tested to date. Clone FL43 may therefore be used to identify *F. psychrophilum* in tissues of infected individuals and may be of use in research to develop treatment regimes for farmed salmonid species ([Lindstrom et al. 2009](#)).

References

1. Lindstrom, N. M, et al. (2009) A quantitative enzyme-linked immunosorbent assay and filtration-based fluorescent antibody test as potential tools to screen broodstock for infection with *Flavobacterium psychrophilum*. [J Aquat Anim Health. 21: 43-56.](#)
2. Gliniewicz, K. et al. (2012) Comparative proteomic analysis of virulent and rifampicin-attenuated *Flavobacterium psychrophilum*. [J Fish Dis. 35 \(7\): 529-39.](#)

Further Reading

1. Madetoja, J., et al. (2000) *Flavobacterium psychrophilum*, invasion into and shedding by rainbow trout *Oncorhynchus mykiss*. [Int J Parasitol. 30: 321-6.](#)
2. Barnes, M.E. et al. (2011) A Review of *Flavobacterium Psychrophilum* Biology, Clinical Signs, and Bacterial Cold Water Disease Prevention and Treatment. [The Open Fish Science Journal 4: 40-8.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. This product is photosensitive and should be protected from light.
Avoid repeated freezing and thawing as this may denature the antibody.

Guarantee

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Related Products

Recommended Useful Reagents

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

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

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

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