



# AQUACULTURE MEDIA

FOR THE BEST FERTILITY RATE



# AQUACULTURE MEDIA

## StorFish / StorFish without Antibiotics

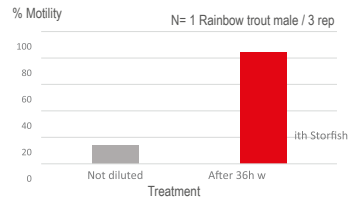
- Safe dilution for milt of freshwater species\*.
- To mature and increase motility of macerated (gonad) milt.
- Preservation of milt for > 4 days at 4°C.
- Can be use as final rinsing solution for material in contact with milt avoiding premature sperm activation.
- Secure environment on waterbath for thawing.



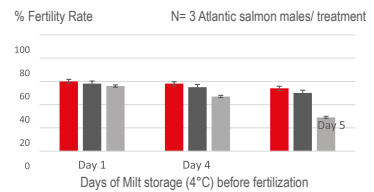
Presentation: 1L for 10L final volume.  
 \*Recommended for salmon, arctic char, trout, sturgeon, and other freshwater species.

**StorFish** Ref: 018500  
**StorFish without Antibiotics** Ref: 029161

Maturation of rainbow trout (Neomale) with StorFish



Fertility Rate of Atlantic salmon eggs at 150 ATU fertilized with Milt stored with different products



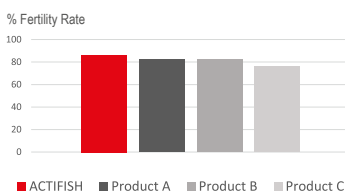
## ActiFish

- Milt activating solution for fertilization in freshwater species\*.
- This solution should replace all liquids present to secure environment.
- Specially recommended for cryopreserved sperm.

Presentation: 1L for 10L final volume.  
 \*Recommended for salmon, arctic char, trout, sturgeon, and other freshwater species.

Ref: 018274

Fertility Rate of Atlantic salmon eggs at 150 ATU fertilized with Milt activated with different products



## OvaFish

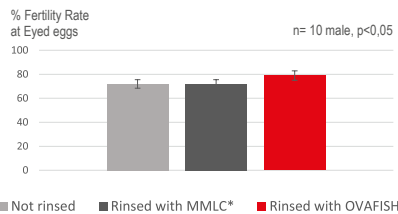
- Washing and cleaning solution for salmonid eggs\*.
- Composition helps conditioning the oocyte before fertilization.

Presentation: 1L for 10L final volume.  
 \*Recommended for salmon, arctic char, trout, sturgeon, and other freshwater species.



Ref: 026950

% of Atlantic Salmon Eyed eggs, using Cryopreserve milt on oocytes rinsed with different products



\*MMLC= Media from Billard and Jalabert 1974

# FreezeFish / FreezeFish M\*

- Kit for the cryopreservation (freezing) of milt of freshwater species\*.
- Contains all media needed for cryopreservation of milt.
- Protects spermatozoa from membrane damage associated to freezing.
- Fresh M contains Methanol and FreezeFish contains DMSO.

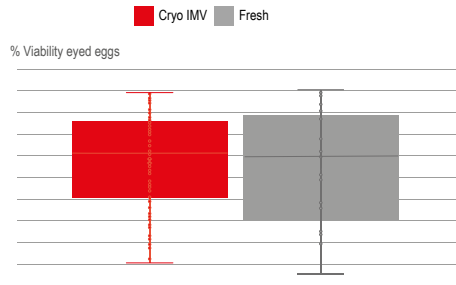
FreezeFish Ref: 026520

\*Including salmon and trout.

FreezeFish M Ref: 026880



% Viability in Atlantic salmon eggs testing IMV Cryopreservation (Cryo) compared with Fresh milt instead of sperm (Fresh)



**NEW**

## FreezeFish without M

- Base solution for cryopreservation, containing liposome and buffered solution.
- Designed for salmonids sperm cryopreservation.
- Specially manufactured to meet airfreight regulation related to Methanol\*.

\*Pure Methanol is required to complete formula.

Ref: 026587

# MarineFreeze

- Media for the cryopreservation of marine species milt\*.
- Can be used to preserve milt for up to 2 days at 4°C or to cryopreserve milt.

3 components for 115 ml of final solution.

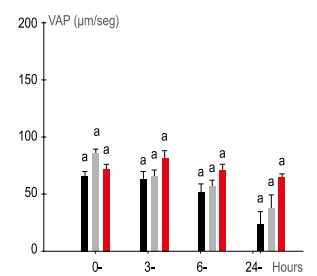
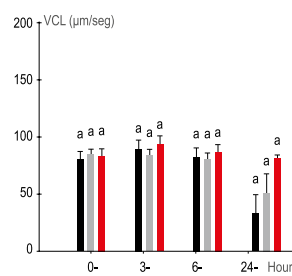
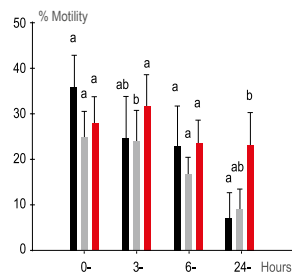
\*Validated for sea bass, sea bream, sole, mullet, among others.



Ref: 027775

### For Fresh Milt Preservation

Control  
Leibovitz (L-15)  
Marine Freeze



# MEDIA & APPLICATIONS

MEDIA	FRESH WATER SPECIES		SEA WATER SPECIES	
	FRESH MILT	CRYOPRESERVED MILT	FRESH MILT	CRYOPRESERVED MILT
StorFish	X	X		
OvaFish	X	X		
ActiFish	X	X		
FreezeFish range		X		
MarineFreeze			X	X

# SCIENTIFIC PUBLICATIONS

## STORFISH

Merino O., Figueroa E., Cheuquemán C., Valdebenito I., Isachenko V., Isachenko E. et al. (2017) Short-term storage of salmonids semen in a sodium alginate-based extender. *Andrologia* 49. <https://doi.org/10.1111/and.12661>.

**Storfish is used as the reference extender for testing sperm storage adding extra alginate with good result.**

Merino O., Dumorné K., Sandoval-Vargas L., Figueroa E., Valdebenito I., Fariás J., Risopatron J. Short-Term Storage of Coho salmon (*Oncorhynchus kisutch*) at 4°C: Effect of sperm extender dilution ratios and antioxidant butyl-hydroxytoluene (BHT) on sperm function. (2019) *Cryobiology* 2020, 06, 007

**Storfish is used as extender testing the addition of supplementary BHT.**

Bobé J., Labbé C., (2009) Chilled storage of sperm and eggs. In: Cabrita E., Robles V., Herraiz P. (eds) *Methods in Reproductive Aquaculture: Marine and Freshwater Species*, pp 219-235. CRC Press, Boca Raton, London, NY

**Storfish allows both storage and artificial maturity of testicular sperm in females of reversed sex.**

Trigo P., Merino O., Figueroa E., Valdebenito I., Sanchez R., Risopatrón J., (2015) Effects on Short-term semen storage in Salmon (*Oncorhynchus mykiss*) on sperm functional parameters evaluated by flow cytometry. *Andrologia* 47 : 407-411.

Contreras P., Dumorné K., Ulloa-Rodríguez P., Merino O., Figueroa E., Fariás J., Valdebenito I., Risopatron J. Effects on short-term storage on sperm function in Fish semen : A review. (2019) *Reviews in Aquaculture* 1-17.

**This review summarizes the factors affecting sperm storage and refers Storfish as both extending and maturation solution.**

Contreras P., Ulloa-Rodríguez P., Merino O., Valdebenito I., Figueroa E., Fariás J., Effects on short-term storage on sperm function in Patagonian blenny (*Eliginops maclovinus*) (2017) *Aquaculture* 481 :58-63.

## ACTIFISH

Nusbaumer D., Marques da Cunha L., Wedekind C. Sperm cryopreservation reduces offspring growth. (2019) *Proc. R. Soc. B*, 286, 20191644

**Actifish, Storfish and Leja were used as basis for cryopreservation effect tests.**

## OVAFISH

Haffray P., Labbé C., IMV Technologies & Gérard Maisse Fish Sperm cryopreservation in France : From laboratory studies to application in selective breeding Programs (2008) *Cybium* 2008, 32(2) suppl. :127-129

**Actifish, Storfish and Ova fish used for cryopreservation tests.**

## MARINE FREEZE

Gonzalez-Lopez W., Ramos-Júdez S., Gimenez I., Duncan N. Sperm contamination by urine in Senegalese sole (*Solea senegalensis*) and the use of extender solutions for short-term chilled storage (2020) *Aquaculture* 516, 734649.

**Marine Freeze shows better effects as marine fish sperm extender on short term storage.**

IMV Technologies media developed in collaboration with the INSTITUT NATIONAL DE RECHERCHE POUR L'AGRICULTURE, L'ALIMENTATION ET L'ENVIRONNEMENT

