

Supplementary Table S1. Enzymes activities produced by *F.psychrophilum* and comparison among the other strains.

Enzyme	Isolates of Finland(N=37) (Madetoja et al, 2001)	Isolates of Sweden(N=8) (Madetoja et al, 2001)	Isolates of Estonia(N=3) (Madetoja et al, 2001)	Isolates of Turkey(N=20) (Kum et al, 2008)	Isolates of Canada(N=42) (Hesami et al, 2010)	Isolates of Danish (N=15) (Christiansen et al, 2016)	FPRT1
Alkaline phosphatase	+	+	+	+	+	+	+
Esterase (C4)	+	+	+	-	-	+	+
Esterase lipase (C8)	+	+	+	+	+	+	+
Lipase (C14)	+	+	+	-	-	-	-
Leucine arylamidase	+	+	+	+	+	+	+
Valine arylamidase	+	+	+	+	+	+	+
Cystine arylamidase	variable	+	+	-	+	-	-

Trypsin	variable	+	+	-	+	-	-
a-Chymotrypsin	-	-	-	-	-	-	-
Acid phosphatase	+	+	+	+	+	+	+
Naphtol-AS-BI-phospho-hydrolase	+	+	+	+	+	+	+
α -Galactosidase	-	-	-	-	-	-	-
β -Galactosidase	-	-	-	-	-	-	-
β -glucuronidase	-	-	-	-	-	-	-
α -Glucosidase	-	-	-	-	-	-	-
β -Glucosidase	-	-	-	-	-	-	-
N-Acetyl- β -glucosaminidase	-	-	-	-	-	-	-
α -mannosidase	-	-	-	-	-	-	-

α -fucosidase	-	-	-	-	-	-	-
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In this result means += positive, - = negative.