SUPPLEMENTARY MATERIAL

Data Descriptor

The PeptideAtlas of a widely cultivated fish *Labeo rohita:* A resource for the Aquaculture Community

Mehar Un Nissa¹, Panga Jaipal Reddy^{2\$}, Nevil Pinto^{3\$}, Zhi Sun², Biplab Ghosh⁴, Robert L.

Moritz², Mukunda Goswami³* and Sanjeeva Srivastava¹*

¹Department of Biosciences and Bioengineering, Indian Institute of Technology Bombay,

Powai, Mumbai 400076, India

²Institute for Systems Biology, Seattle, WA, 98109, USA

³Central Institute of Fisheries Education, Indian Council of Agricultural Research, Versova,

Mumbai, Maharashtra 400061

⁴Regional Centre for Biotechnology, Faridabad, 121001, India

^{\$}Contributed equally

*Correspondence for fish work: Dr. Mukunda Goswami, E-mail: <u>mukugoswami@gmail.com</u>

*Correspondence for proteomics work: Dr. Sanjeeva Srivastava, E-mail: <u>sanjeeva@iitb.ac.in</u>,

Phone: +91-22-2576-7779, Fax: +91-22-2572-3480

TABLE OF CONTENTS for SUPPLEMENTARY DATA

This manuscript contains **one** Supplementary figure, **three** supplementary files and **five** supplementary tables.

Supplementary Figures

Supplementary Figure	Caption	
Figure S1	SDS-PAGE profile of all organs and peptide frequency	

Supplementary Files

Supplementary files S1 to S3 are provided as separate documents.

Supplementary File	Caption	File format
File S1	Tissue wise details of all raw files	.pdf
File S2	The comet search parameter file	.pdf
File S3	MAYU statistical report	.xlsx

Supplementary Tables

Supplementary Table S1 to S5 are in .xlsx format and provided as separate excel file.

Supplementary Table	Caption	Number of
		worksheets
Table S1	List of all proteins in Rohu PeptideAtlas and EggNOG	4
	analysis details	
Table S2	Experiment wise peptide list of Rohu PeptideAtlas and	2
	details of unique peptides and sequence coverage	
Table S3	List of peptides and proteins taken for SRM verification	1
	experiment	
Table S4	SRM Transition list1	1
Table S5	SRM Transition list2	1

Supplementary Figures

Supplementary Figure S1



Supplementary Figure S1 SDS-PAGE profile of all organs and peptide frequency, a. Showing different band pattern across the organs (AB- Air bladder, GB- gall bladder, FGfemale gonad, MG- male gonad, SC- spinal cord), **b.** Frequency of peptides with respect to missed cleavages

Supplementary Tables

Supplementary Table S1: List of all proteins in Rohu PeptideAtlas and EggNOG analysis details

S.no.	Worksheet name	Description
1		Total 9286 proteins of peptide atlas (including 6015
	Total_proteins_PA	canonical proteins)
2	Canonical proteins	Total canonical proteins
3	Canonical Protein	EggNOG output for ortholog analysis of all canonical
	eggNOG output	proteins.
4		Input file for barplot of ortholog (related to Figure
	Input_Egg_NOG_Can	2/Table 2)

This is an excel workbook and have four worksheets as below.

Supplementary Table S2: Experiment wise peptide list of Rohu PeptideAtlas and details of unique peptides and sequence coverage.

S.no.	Worksheet name	Description
		This sheet contains tissue/Experiment wise list of
1	Organ_wise_peptides	peptides enlisted in Rohu PeptideAtlas.
		This sheet contains the list of Canonical proteins with
		details like number of unique peptides (n_distinct
	Distinct	peptides) and percent sequence coverage
2	peptide_Coverage	(Seq.coverage). Input for Figure 3e-f.

This is an excel workbook and have two worksheets as below.

Supplementary Table S3: List of peptides and proteins taken for SRM verification experiment

This excel sheet contains the list of peptides along with some peptide wise information as obtained from Rohu PeptideAtlas

Supplementary Table S4: SRM Transition list1

This excel sheet is the transition list 1 that was used to create the method file for SRM run in Triple quadrupole mass spectrometer.

Supplementary Table S5: SRM Transition list2

This excel sheet is the transition list 1 that was used to create the method file for SRM run in Triple quadrupole mass spectrometer.