



***DIGESTIF*, a universal quality standard for the control of bottom-up proteomics experiments**

The *DIGESTIF* products are for research use only and are not intended for diagnostic or therapeutic use. PROMISE Advanced Proteomics shall not be held responsible for any damages resulting from the use of these products.

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I. PRODUCT INFORMATION

The *DIGESTIF* standard consists of a soluble recombinant protein scaffold to which a set of 11 artificial peptides (iRT peptides) with good ionization properties has been incorporated. In the protein scaffold, the amino acids flanking iRT peptide cleavage sites were selected to either favor or hinder protease cleavage. After sample processing, the retention time and relative intensity pattern of the released iRT peptides can be used to assess the quality of sample workup, the extent of digestion and the performance of the LC-MS system. Thus, *DIGESTIF* can be used to standardize a broad spectrum of applications, ranging from simple replicate measurements up to large-scale biomarker screenings in biomedical applications.

DIGESTIF Protein	
Description	Recombinant protein, produced in E.coli Species : Synthetic protein
Amino Acid Sequence	<p>MGSSHHHHHHSSGLVPRGSRRASVHMGSGAKRGTIYDRNGVPIAEDATSGGARLFLQFGAQQGSPFLKT AHWKVEATFGVDESNAKCARYILAGVENSKTAARGTFIIDPGGVIRTAPNRSYPNGQFASSFIGGARGA GSSEPVTLDAKTAHWKADVTPADFSEWSKCHWKTPVISGGPYEYRRPARTTPVITGAPYEYRTAGMES SLNSILAGGGGARLGGNEQVTRTACKDGLDAASYAPVRRPARGGTFIIDPAVIRTAELDGKDVYTTISSPL QSFMETQMDAFQEKVKGKYMATLVSAKTGEILATTQRPTFDADTKEGITEDFVWRDILYQSNYEPGSTM KVMMLAAAIIDNNTFPGGEVFNSELKIADATIRDWDVNEGLTGGRMMTFSQGFHSSNVGMTLLEQK MGDATWLDYLNRFKFGVPTRFGLTDEYAGQLPADNIVNIAQSSFGQGISVTQTQMIRAFATAIANDGVML EPKFISAIYDPNDQTARKSQKEIVGNPVSKDAASLRTNMLVVGTDVPVYGTMYNHSTGKPTVTVPGQNVV LKSGTAQIADEKNGGYLVGLTDYIFSAVSMSPAENPDFILYVTVQQPEHYSIGIQLGEFANPILERSAMKDSL NLQTTAKALEQVSQQSPYMPVSKDISPGDLAEELRRNLVQPIVVGTGKTIKNSSAEEGKNLAPNQQLVLS DKAEVPMYGWTKETAETLAKWLNIELEFGSGSTVQKQDVRANTAIDIKKITLTLGD</p>
MW (kDa)	81,6
IP	6.17
Isotope incorporation	Arginine: U-13C6; U-15N4, >99% Lysine: U-13C6; U-15N2, >99%
Purity	> 95% by SDS-PAGE
Form and reconstitution	10µg lyophilized. Reconstitute by adding H2O.
Stability and Storage	Shipped at ambient temperature. Upon delivery, store at -20°C. After reconstitution, keep at 4°C. Stable 1 month in solution and > 1 year if kept lyophilized. Avoid repeated freeze/thaw cycles. Preservative : None Constituents: 20mM Tris-HCl, 100mM NaCl, 1% Trehalose, 0.001% Tween 20, pH 8



SDS-PAGE –
DIGESTIF protein
(LAB062015)

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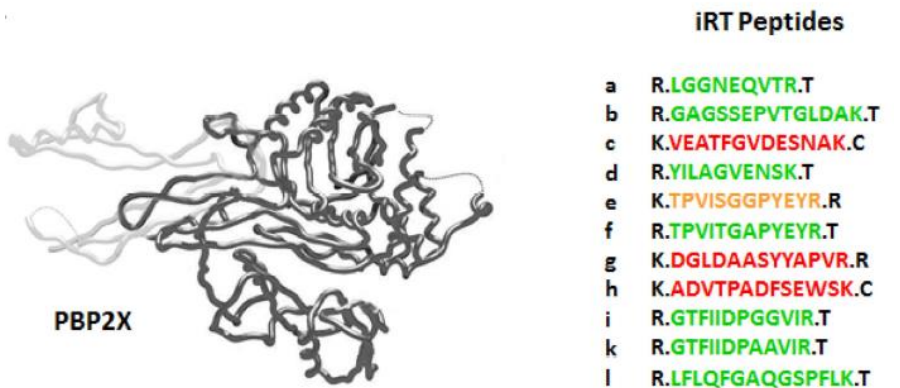


Figure 1. The DIGESTIF protein was assembled using iRT peptides and a protein scaffold called PBP2x mini 40 from which N-terminal sequences (grey) have been removed. Based on di-amino acid motifs surrounding cleavage sites, iRT peptides were designed to fall into one of 3 categories: sequences in green correspond to easily released peptides, orange lettering indicates moderately released peptides, and red peptides are classed as difficult to cleave.

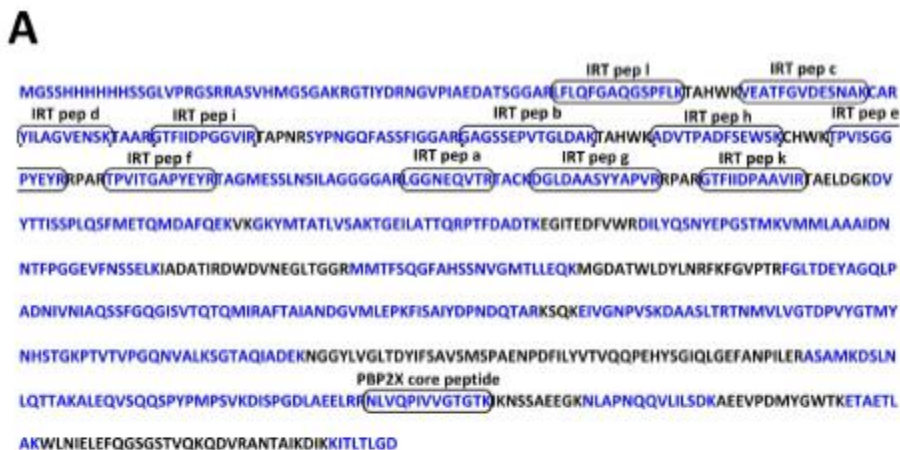
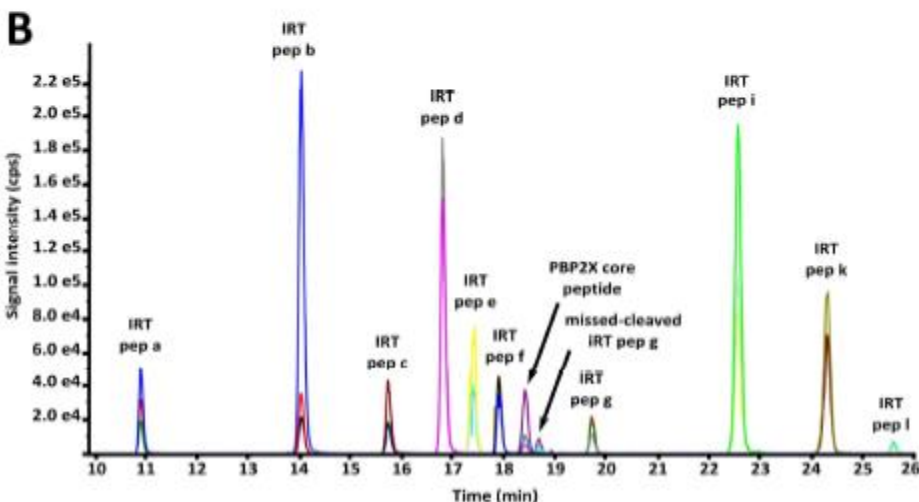


Figure 2. LC-SRM analysis of DIGESTIF standard. Pure DIGESTIF was submitted to in-solution trypsin digestion followed by oxidation. The digest was analyzed using a scheduled LC-SRM method targeting iRT peptides, the missed-cleaved iRT peptide g and the PBP2x core peptide. The extracted ion chromatogram for the corresponding SRM transitions is presented.



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II. REFERENCES OF DIGESTIF PRODUCTS

References	Description
DIGESTIF protein, purified, labelled on Arg and Lys (13C,15N)	
DIGESTIF-C13N15-10	10µg DIGESTIF PSAQ standard
DIGESTIF-C13N15-100	100µg DIGESTIF PSAQ standard
DIGESTIF-C13N15-500	500µg DIGESTIF PSAQ standard
DIGESTIF protein, purified, non-labelled	
DIGESTIF-light-10	10µg DIGESTIF standard
DIGESTIF-light-100	100µg DIGESTIF standard
DIGESTIF-light-500	500µg DIGESTIF standard
Other quantities on demand	

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SAFETY DATASHEET

Issuing Date : 2016/10/17

Revision Date :

Version: 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier : DIGESTIF-C13N15, DIGESTIF-light

Relevant identified uses of the substance or mixture and uses advised against

This product is for research use only.

This product is not intended for therapeutic use. It should not be administered to humans or animals.

Details of the supplier of the safety data sheet

PROMISE Advanced Proteomics

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38040 Grenoble

FRANCE:

Tel: +33.4.38.02.36.50

Fax: +33.4.38.02.10.38

Email: contact@promise-proteomics.com

Emergency telephone number: +0033.4.38.02.36.50 (8.00am-17.00pm)

Email: reactovigilance@promise-proteomics.com

2. HAZARDS IDENTIFICATION

Classification of the substance

Non-Toxic and Non-Infectious

Label elements

Other information

The preparations do not contain any animal derived additives.

The materials do not come from a facility where work with exotic viruses affecting livestock and avian species is conducted.

The materials are recombinant but contain no genes and express no products of exotic livestock or poultry disease agents.

3. COMPOSITION/INFORMATION OF INGREDIENTS

DIGESTIF protein

4. FIRST AID MEASURES

Description of first aid measures

- Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
- Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

- Ingestion: Clean mouth with water. Drink plenty of water.
- Inhalation: Move to fresh air.

Most important symptoms and effects, both acute and delayed

No information available

Indication of any immediate medical attention and special treatment needed

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special hazards arising from the substance or mixture

None in particular.

Advice for fire-fighters

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

Precautions of safe handling

Ensure adequate ventilation.

Conditions of safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Specific end uses

No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Exposure limits: National occupational exposure limits

Derived No Effect Level: No information available

Predicted No Effect Concentration: No information available

Exposure controls:

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye protection Tightly fitting safety goggles.

Hand protection Protective gloves.
Skin and body protection Long sleeved clothing.
Respiratory protection No special protective equipment required.
Thermal hazards No information available

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls : No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State @20°C: No information available

Odor: No information available

Appearance: no information available

pH: No information available

Melting/freezing point: No information available

Boiling point/boiling range: No information available

Flash point: No information available

Evaporation rate: No information available

Flammability (solid,gas): No information available

Vapor pressure: No information available

Vapor density: No information available

Relative density: No information available

Water solubility: No information available

Solubility in other solvents: No information available

Partition coefficient : n-octanol/water: No information available

Autoignition temperature: No information available

Decomposition temperature: No information available

Viscosity, kinematic: No information available

Explosive properties: No information available

VOC content (%): No information available

10. STABILITY AND REACTIVITY

Reactivity: No information available

Chemical stability: Stable under normal conditions

Precautional Statements: None under normal processing

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: None in particular

Hazardous decomposition products: None under normal conditions.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Product information: No data available

Inhalation: No data available

Eye contact: No data available

Skin contact: No data available

Ingestion: No data available

Chronic toxicity

Corrosivity: No information available

Sensitization: No information available

Neurological effects: No information available

Reproductive toxicity: No information available

Mutagenic effects: No information available

Target Organ effects: No information available

12. ECOLOGICAL INFORMATION

Toxicity: As supplied, the preparation is not expected to present significant adverse environmental effects.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility in soil: No information available

Results of PBT and vPvB assessment: No information available

Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Dispose of in accordance with local regulations.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

16. OTHER INFORMATION

Issue date: 2016/10/17

Revision Note:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty of quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or any in process, unless specified in the text.