



# APro™

Blood-derived proteins for meat applications





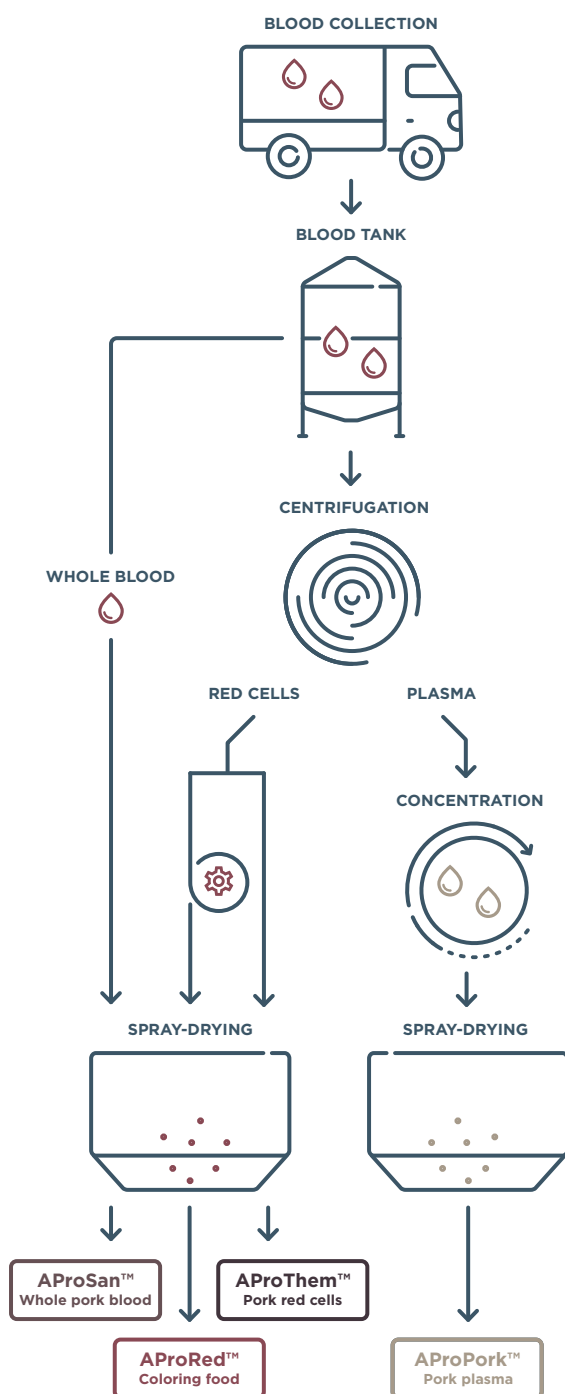
High quality  
ingredients  
derived from  
porcine blood





# One raw material – four solutions

APro™ is a range of porcine proteins derived from food grade blood obtained through an advanced technology but following a simple process based on an initial centrifugation and a subsequent spray-dry to obtain powdered products.







## APro™ blood-derived ingredients

The APro™ range consists of premium functional ingredients that deliver various value-adding benefits to enhance the quality of many different meat products.



# APro™ – a great choice for all meat applications

APro™	Origin	Protein N x 6.25	Appearance	Water binding	Fat binding	Application areas
<b>AProPork™</b>		≥ 70 %	Free flowing powder	1:12	1:12	<ul style="list-style-type: none"><li>• Injected and reformed products</li><li>• Emulsified products</li><li>• Ground products</li><li>• Retorted products</li></ul>
<b>AProRed™</b>		≥ 62 %	Microgranulated powder	0	0	<ul style="list-style-type: none"><li>• Injected and reformed products</li><li>• Emulsified products</li><li>• Ground products</li><li>• Dried and fermented products</li></ul>
<b>AProSan™</b>		≥ 85 %	Microgranulated powder	1:5	0	<ul style="list-style-type: none"><li>• Blood products</li></ul>
<b>AProThem™</b>		≥ 92 %	Microgranulated powder	1:4	0	

## Nutritional advantages

- › Excellent amino acid profile
- › Microbiologically stable
- › 100 % pork origin
- › 100 % soluble
- › No-GMO
- › No known allergens
- › No E-numbers

All APro™ proteins can be used in combination with other functional ingredients.



# AProPork™

AProPork™ is a heat-stable protein with excellent functionality that will improve the overall quality in meat products.

It is a functional blood derived protein, ideal to provide texture and meat-bite to cooked/pre-cooked applications because it has an irreversible water-binding capacity. Resulting products are heat stable with no drip loss.

## Improved appearance and enhanced eating experience

- › Improved texture and consistency
- › Increased yield
- › Improved sliceability
- › Outstanding emulsifier
- › Increased meat bite
- › Excellent performance in sterilized processes
- › Gelling capacity during heat process

## Optimized cost-in-use

- › Reduced formulation cost
- › Increased yield
- › Increased processing yield due to improved sliceability

## Recommended usage levels

- › Injected products: < 0.70 %
- › Reformed products: < 2.00 %



# AProRed™

AProRed™ is a blood-derived protein ideal for enhancing the natural color of all processed meat products.

It is a coloring food that originates from spray-dried porcine blood, and due to its ability to easily disperse in water and brine, it is especially recommended for use in injected and reformed meat products.

## What does AProRed™ bring to your recipe

- Improved appearance and enhanced eating experience
- More appealing meat color
- Corrects and equalizes out variations in color
- Provides a perception of higher lean meat content
- Colors only lean meat, keeps fat completely white
- Similar performance as myoglobin in the meat
- No changes in smell or taste of the finished product

## Optimized cost-in-use

- Less smoking time is required to achieve desired appearance
- Intensifies the natural meat color to highly extended products

## How to use AProRed™

AProRed™ is applicable in all meat products where color is needed for improvement of the meat perception.

- Injected products: 0.01 – 0.08 %
- Restructured products: 0.06 – 0.10 %
- Cooked, fermented and dried plus fresh products: 0.10 – 0.20 %

AProRed™ can be added directly into the brine, however it is recommended to mix with other ingredients to speed up its dissolution.





# AProSan™ and AProThem™

AProSan™ and AProThem™ are blood proteins suitable for products which contain blood.

They gel upon cooking and transform into thermo-stable gels.

When used to produce blood sausages by replacing liquid blood, AProSan™ and AProThem™ can be used either pre-hydrated or in powder form.

## **Improved appearance and enhanced eating experience**

- › Same coagulation and coloring effect as blood

## **Optimized cost-in-use**

- › Easy to store
- › Use of the specific dose



# Bringing the best of nature directly into your formulation

**Whether you are looking to clean up your label, add appealing attributes to your food or beverage product or improve the nutritional value of your brand, Essentia Protein Solutions can help you reach your goals.**

Essentia Protein Solutions is a global producer of animal protein solutions for the food and beverage industry. All Essentia ingredients are derived from natural raw materials originating from beef, pork,

chicken, lamb, fish and insect. The advanced fractionation methods used in our modern facilities only involve thermal and mechanical processing, without using food additives of any kind.

Whatever trend you want to tap into, a good place to start is our Innovation Centers, where our protein experts are ready to engage with your experts to help create exciting new products that consumers feel good about eating.



**MEAT**



**SAVORY**



**NUTRITION**



**DAIRY**



**PET FOOD**