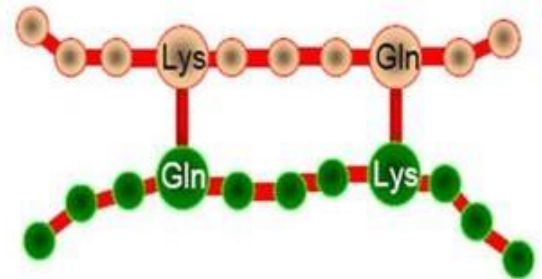


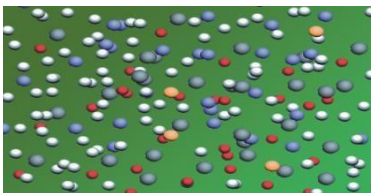
H & A TRANSGLUTAMINASE



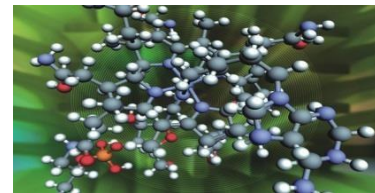
Transglutaminase



Transglutaminase (TG), which is widely distributed in nature, is an enzyme with the revolutionary ability to polymerize protein molecules. TG can effectively improve the quality of food, while reducing production costs.



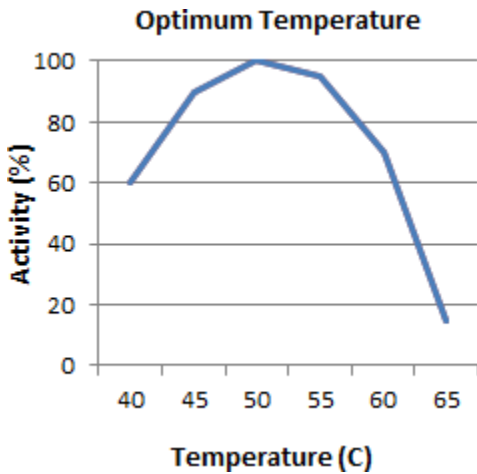
Transglutaminase



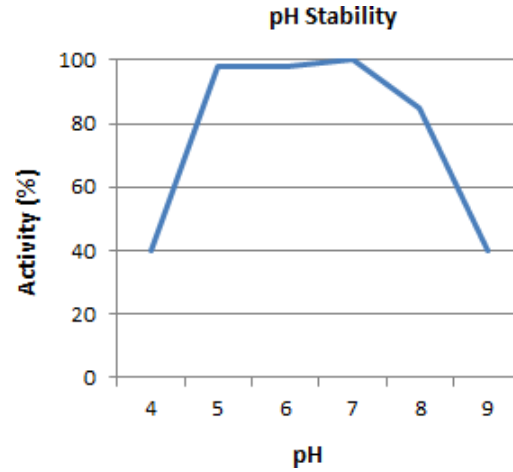
Results: Transglutaminase catalyzes the formation of cross-links between the amino acid residues Lysine and Glutamine in proteins, causing covalent bonds between proteins. As a result, a strong protein network is formed, which increases the strength and elasticity of food, avoiding slicing losses.

TIME AND TEMPERATURE

As an enzymatic reaction, TG is influenced by the factors time and temperature. Higher reaction temperatures require less reaction time, while reactions at a lower temperature evolve slower.



Temp range: 0 – 65°C
Optimum temp range: 50 – 55 °C



pH range: 4 – 9
Optimum pH range: 6 – 7



Transglutaminase links the natural proteins of food, reducing the use of additives or protein supplements.

After the reaction, **Transglutaminase** leaves no residue due to oxidation or temperatures above 60°C .

According to European regulations 1332/2008, **Transglutaminase** is a coadjuvant and does not need to be labeled.

In the United States **Transglutaminase** is *Generally Recognized as Safe* (GRAS) and is approved by the FDA.



ABOUT H & A Transglutaminase

H & A Transglutaminase is a patented product, with higher efficiency and better results. It makes higher quality products and reduces cost for the food industry comparing with transglutaminase powder form.



TG liquid spreads and dissolves easily into food, reducing operation time and increasing effectiveness.

Stable at room temperature

No dust: avoid the use of mask and gloves during manipulation

Reduce cost in food industry

Texture improvement and avoid syneresis

APPLICATIONS

MEAT & FISH



SAUSAGE & HAM



DAIRY

BAKERY



SURIMI & PRODUCTS



H & A Transglutaminase LIQUID vs POWDER

High efficiency

- H & A Transglutaminase rapidly disperses in the food matrix, reducing reaction time and increasing effectiveness.
- It does not need to be diluted previously so it allows the automation of the production line.

Dust-free, increased safety

- Does not pollute the environment, so it is easy to operate.
- Avoids any allergic reaction.

Reduces costs

- Fewer doses are required compared to the powder format.
- Storage at room temperature without refrigeration.
- No vacuum packaging system required.
- stable at room temperature.

