

# Protein Hydrolyzed Whey

Protein hydrolyzed whey has a portion of the whey protein hydrolyzed into smaller fragments. Enzymes such as trypsin, chymotrypsin, etc. are used.

There is considerable variation in the product profile which typically is application driven. Protein hydrolyzed whey products designed for heat stability often will have less hydrolysis (larger molecular weight fragments) than products for infant nutrition.

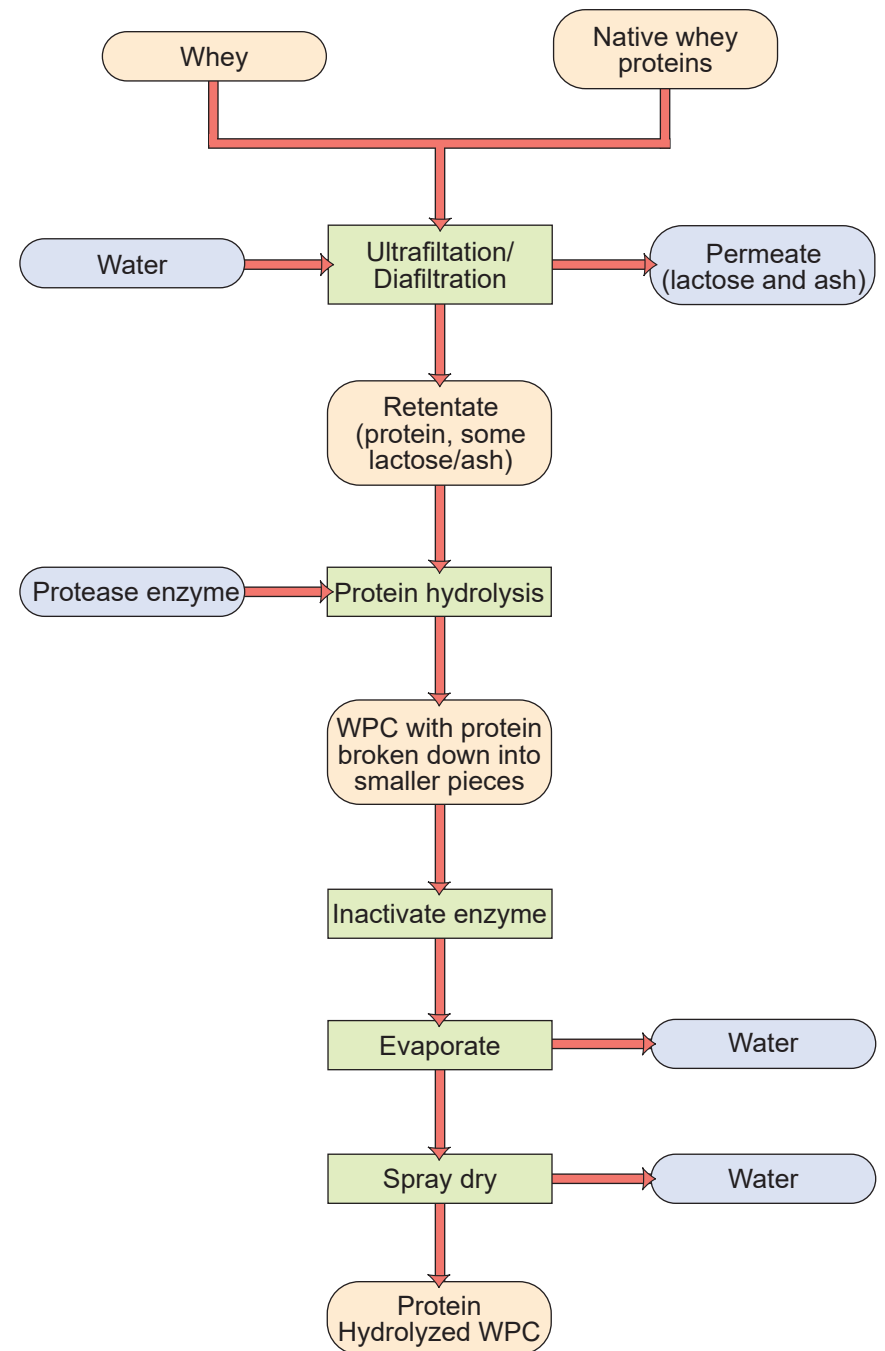
The specific enzymes used, sequence of enzymes, reaction time, reaction temperature, etc are all important and can affect the type of protein fragments produced.

Manufacturers typically use whey protein concentrates (WPC) as starting material to produce protein hydrolyzed products with higher protein contents. The whey protein concentrates may be derived from either whey or milk (native whey protein)

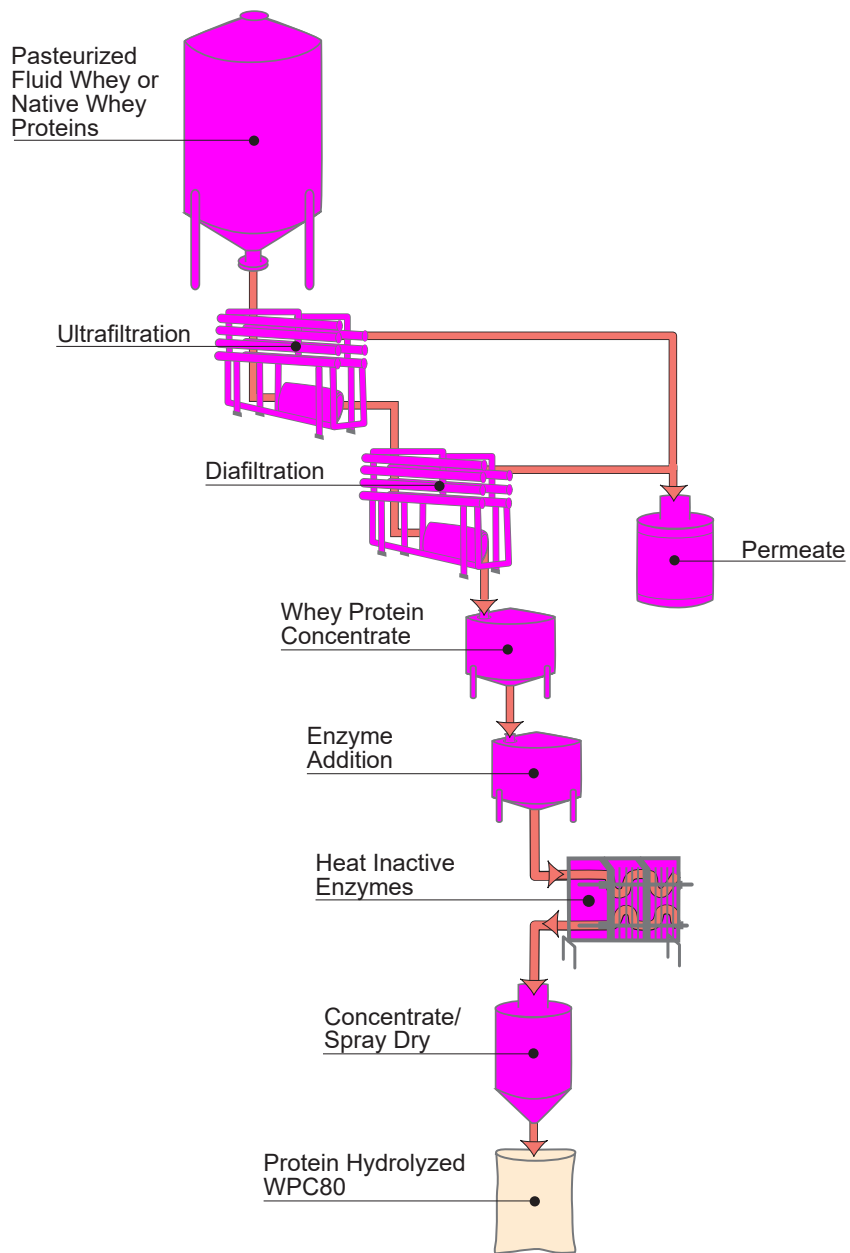
### Regulations

- ◆ None, product not defined

## General Process for Manufacture of Protein Hydrolyzed Whey



## Manufacture of Protein Hydrolyzed Whey



## Typical composition and characteristics

### Hydrolyzed WPC 80 #1\*

- ♦ Typical composition
 

Protein (db)	81%
Moisture	4%
Lactose	4%
Fat	6%
Ash	4%
- ♦ Characteristics
  - Color: cream
  - Flavor: na
- ♦ Storage
  - <25 C, <75% rh
  - 24 months

### Hydrolyzed WPC 80 #2\*

- ♦ Typical composition
 

Protein (db)	81%
Moisture	4%
Lactose	na%
Fat	5%
Ash	3%
- ♦ Characteristics
  - Color: cream
  - Flavor: na
  - pH 8.0
- ♦ Storage
  - <27 C, <75% rh

### Hydrolyzed WPI\*

- ♦ Typical composition
 

Protein (db)	91%
Moisture	4%
Lactose	3%
Fat	<1%
Ash	2%
- ♦ Characteristics
  - Color: cream to dark cream
  - Flavor: na
  - pH 6.5
- ♦ Storage
  - na

\*Exact composition depends on manufacturer

## Typical Product Labeling

Whey protein hydrolysate, Whey protein concentrate