1

1
2 1
1

2

(hydrogen bond)

(gluten)

[1]

(amino acid)
(peptide bond) ($-NH_2$)
(-COOH)

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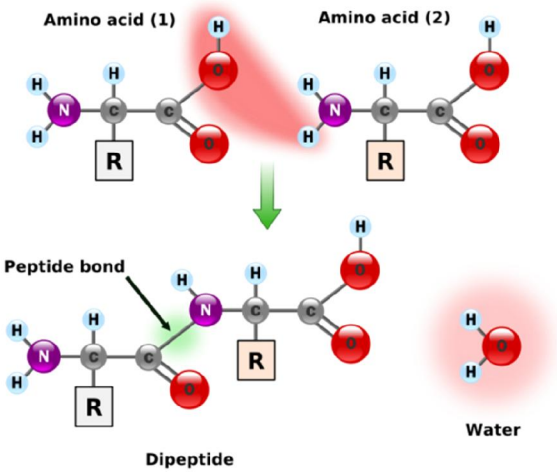
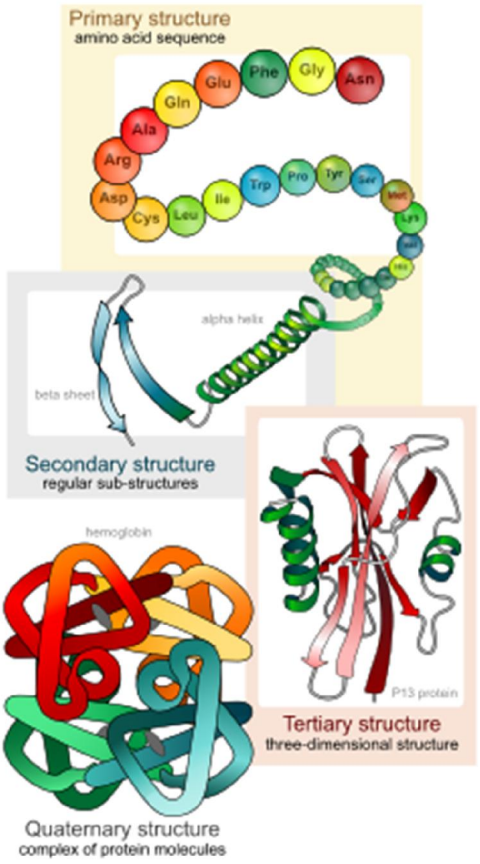


(:http://en.wikipedia.org/wiki/File:AminoAcidball.svg)



2 (:
http://en.wikipedia.org/wiki/File:Main_protein_structure_levels_en.svg)

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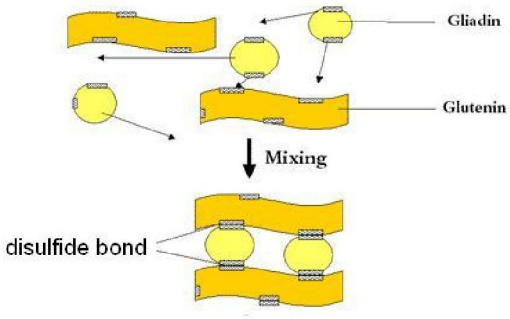
(disulfide bond)

(cereal grain) 3

(wheat)

(glutenin)

(gliadin)



3 (disulfide bond)

(: http://www.foodnetworksolution.com/vocab/wordcap/gluten)

[1] [2]

2

(bakery)

(yeast)

1 (bread)

(doughnut) (cake)

(vegan)

[3] [4]

1 100 [5]

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	( )
	0.6-1.2
	1.9-3.6
	1.9-2.8
	0.8-1.3
	1.0-2.2
	0.7-4.8
	6.4
	4.4-4.9
	11.8
	24.4
	34.1
	15.0
	16.7
	17.2

2 [1] [2]

Protein solvation

hydrophobic bonding

hydrophobic bonding

hydrophobic bonding

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(Degree of Hydrolysis, DH)

[8]

Proteases Endoproteases
Alkaline proteases

(Arginine) (Lysine) [9]
(Papain) (Bromilain)
Alcalase® Neutase® Flavourzme®
[2][10][11]

DH
DH
3-MCPD (-monochloropropane- , diol)

[6][7] DH
DH
[8]

DH 1 – 10%

DH
10 % [12] [13] [14] [15] DH
(mild treatment) -

-
8.0 37
Alcalase® -
8.0-8.6 50-
- 60 [16][17][18]

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