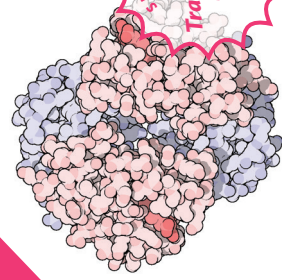


Haemoglobin



Globular

SPECIAL SKILL
Transporting oxygen

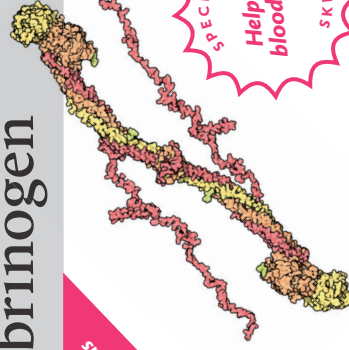
Molecular mass (daltons)	c. 65 000
Amino acids	574
Subunits	4 (2 alpha, 2 beta)
Cofactors	4 (1 haem per subunit)
Nobel Prizes	1
Related diseases	Sickle-cell anaemia, thalassaemia

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BigPicture

Image by David S. Goodsell, RCSB Protein Data Bank

Fibrinogen



Fibrous

SPECIAL SKILL
Helping blood clot

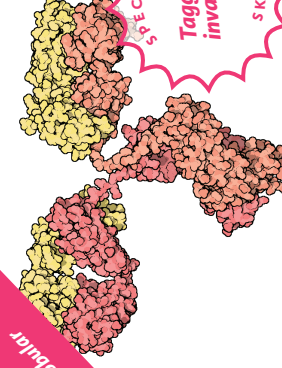
Molecular mass (daltons)	167 000 (three polypeptide chains)
Amino acids	625, 450 and 410 for each different chain
Subunits	6
Cofactors	0
Nobel Prizes	1
Related diseases	Fibrinogen deficiency (afibrinogenemia)

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BigPicture

Image by David S. Goodsell, RCSB Protein Data Bank

Immunoglobulin



Globular

SPECIAL SKILL
Tagging invaders

Molecular mass (daltons)	c. 150 000
Amino acids	c. 1400
Subunits	4 (2 heavy, 2 light chains)
Cofactors	0
Nobel Prizes	4
Related diseases	Autoimmune diseases

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Image by David S. Goodsell, RCSB Protein Data Bank

Insulin



Globular

SPECIAL SKILL
Regulating blood glucose

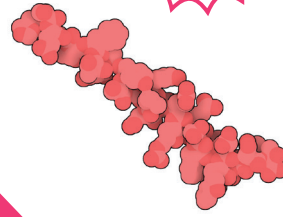
Molecular mass (daltons)	5808
Amino acids	51
Subunits	2 (A and B)
Cofactors	0 (active form)
Nobel Prizes	3
Related diseases	Diabetes

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BigPicture

Image by David S. Goodsell, RCSB Protein Data Bank

Glucagon



Globular

SPECIAL SKILL
Raising blood glucose levels

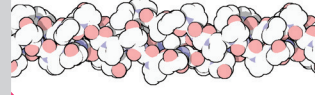
Molecular mass (daltons)	3 483
Amino acids	29
Subunits	1
Cofactors	0
Nobel Prizes	0
Related diseases	Hypoglycaemia

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BigPicture

Image by David S. Goodsell, RCSB Protein Data Bank

Collagen



Fibrous

SPECIAL SKILL
Supporting structures

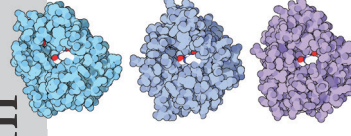
Molecular mass (daltons)	c. 360 000 (triple helix)
Amino acids	c. 1000
Subunits	3 chains per helix
Cofactors	0
Nobel Prizes	0
Related diseases	Scurvy, brittle bone disease, Ehlers-Danlos syndrome

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BigPicture

Image by David S. Goodsell, RCSB Protein Data Bank

Trypsin



Globular

SPECIAL SKILL
Breaking down proteins

Molecular mass (daltons)	c. 23 300
Amino acids	223
Subunits	2 (1 alpha, 1 beta)
Cofactors	0
Nobel Prizes	0
Related diseases	Cystic fibrosis, meconium ileus

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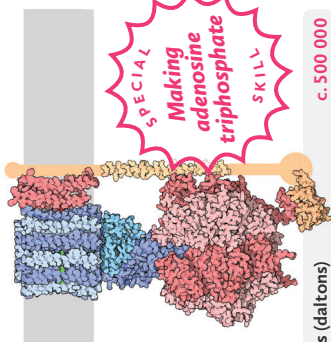
BigPicture

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ATP synthase

Membrane protein



Molecular mass (daltons)	c. 500 000
Amino acids	c. 5100
Subunits	20+ (in humans)
Cofactors	0
Nobel Prizes	1
Related diseases	Mitochondrial diseases

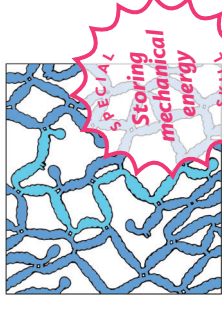
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Elastin

Fibrous



Molecular mass (daltons)	66 136
Amino acids	757
Subunits	Continuous mesh
Cofactors	0
Nobel Prizes	0
Related diseases	Marfan's syndrome, William's syndrome

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