



ACROSS

- 1 The _____ site of an enzyme contains the catalytic and binding sites.
- 3 _____ inhibition is a type of inhibition that reduces the maximum rate of a chemical reaction without changing the apparent binding affinity of the catalyst for the substrate.
- 5 A _____ is an enzyme capable of cleaving the phosphodiester bonds between the nucleotide subunits of nucleic acids.
- 7 _____ is the addition of a phosphate group to a protein molecule or a small molecule.
- 9 _____ inhibition is a form of enzyme inhibition where binding of the inhibitor to the enzyme prevents binding of the substrate and vice versa.
- 12 The _____ structure of a protein is the general three-dimensional form of local segments of biopolymers such as proteins and nucleic acids.
- 13 _____ proteins, also called scleroproteins, are long filamentous protein molecules that form one of the two main classes of tertiary structure protein, the other being globular proteins.
- 15 Enzyme _____s are molecules that bind to enzymes and decrease their activity.
- 16 _____s are proteins that contain oligosaccharide chains covalently attached to their polypeptide backbones.
- 17 Protein _____ is the physical process by which a polypeptide arranges into its characteristic three-dimensional structure.
- 18 A _____ is a molecule upon which an enzyme acts.
- 21 A _____ amino acid or indispensable amino acid is an amino acid that cannot be synthesized de novo, and therefore must be supplied in the diet.
- 24 Post-_____ modification is the chemical modification of a protein after its initial synthesis on a ribosome. It is one of the later steps in protein biosynthesis for many proteins.
- 26 _____s are proteins that catalyze chemical reactions.
- 27 The _____ structure of a protein or any other macromolecule is its three-dimensional structure, as defined by the atomic coordinates.

- 29 The _____ helix is a common motif in the secondary structure of proteins, a right-handed coiled conformation, resembling a spring, in which every backbone N-H group donates a hydrogen bond to the backbone carbonyl group of the amino acid four residues earlier.
- 31 A protein _____ is a group of two or more associated proteins formed by protein-protein interaction that is stable over time.
- 32 _____ proteins, or spheroproteins are one of the two main protein classes, comprising globelike proteins that are more or less soluble in aqueous solutions.
- 33 _____ feedback feeds part of a system's output, inverted, into the system's input; generally with the result that fluctuations are attenuated.
- 34 Enzyme _____ is the study of the rates of chemical reactions that are catalysed by enzymes.
- 35 A _____ bond is a chemical bond that is formed between two amino acids when the carboxyl group of one molecule reacts with the amino group of the other molecule, releasing a molecule of water.
- 36 A _____ is a chemical compound that is electrically neutral but carries formal positive and negative charges on different atoms.
- 37 _____s are short polymers formed from the linking, in a defined order, of alpha-amino acids.
- 38 The _____ state of a protein is its operative or functional form.
- 39 _____ is the large-scale study of proteins.

DOWN

- 2 The N- or amino-_____ refers to the end of a protein or polypeptide terminated by an amino acid with a free amine group.
- 4 A membrane _____ protein is a protein involved in the movement of ions, small molecules, or macromolecules, such as another protein across a biological membrane.
- 6 A _____ chain in organic chemistry and biochemistry is a part of a molecule that is attached to a core structure.
- 7 The term _____ refers all the expressed proteins in an organism at a given time point under

defined conditions.

- 8 _____s are large organic compounds made of amino acids arranged in a linear chain and joined together by peptide bonds between the carboxyl and amino groups of adjacent amino acid residues.
- 9 _____ is the main protein of connective tissue in animals and the most abundant protein in mammals, making up about 25% of the total protein content.
- 10 The C- or carboxyl-_____ of a protein or polypeptide is the end of the amino acid chain terminated by a free carboxyl group.
- 11 A _____ acid is a molecule that contains both amine and carboxyl functional groups. In biochemistry, this term is often used to refer to the select group of specific forms that serve as the building blocks of proteins.
- 14 A _____ bond is a single covalent bond derived from the coupling of thiol groups.
- 19 Enzyme _____s are molecules that bind to enzymes and increase their activity.
- 20 The _____-pleated sheet is a major form of regular secondary structure in proteins along with the alpha helix. This form of secondary structure consists of strands connected laterally by three or more hydrogen bonds, forming a generally twisted, pleated sheet.
- 22 The _____ point is the pH at which a particular molecule or surface carries no net electrical charge.
- 23 The _____ structure of a biological molecule is the exact specification of its atomic composition and the chemical bonds connecting those atoms, including stereochemistry.
- 25 The _____ structure of a protein is the arrangement of multiple folded protein molecules in a multi-subunit complex.
- 28 _____ catalysis is the catalysis of chemical reactions by proteins.
- 30 A _____ is any enzyme that conducts proteolysis, that is, begins protein catabolism by hydrolysis of the peptide bonds that link amino acids together in the polypeptide chain.