Biochem test bank
Done by Mahmood Alabsi

let me know If these are mistakes

Choose the correct statement:

A. Receptor dimerization is enough to starts action
B. protein phosphatase 1 and phospholipase C are targets to receptor tyrosine kinase
C. Auto phosphorylation of the receptor occurs after Phosphorylation of the target proteins
D. JAK works as a dimer on the outer surface of the membrane
E. JAK is inactive when phosphorylated

Answer:B

Choose the incorrect statement:

A. Both JAK and STAT has SH2 domain which is used for attachment
B. STAT Dimerization is followed by Phosphorylation
C. If JAK2 remains active it will produce Cancer
D. Ras is a monomeric G protein that exert action on nucleus or cytoplasm
E. All are correct

Answer:B

Choose the incorrect statement:

A. GHRH is the biggest hormone among hypothalamus hormones
B. (TRH)is the smallest peptide hormone
C. Both somatostatin and GHRH has 3 forms
D. Prolactin (PRL) Straight-chain protein (198 aa) is the largest hormone known
E. Beta subunit is the functional subunit in LH

Answer:D

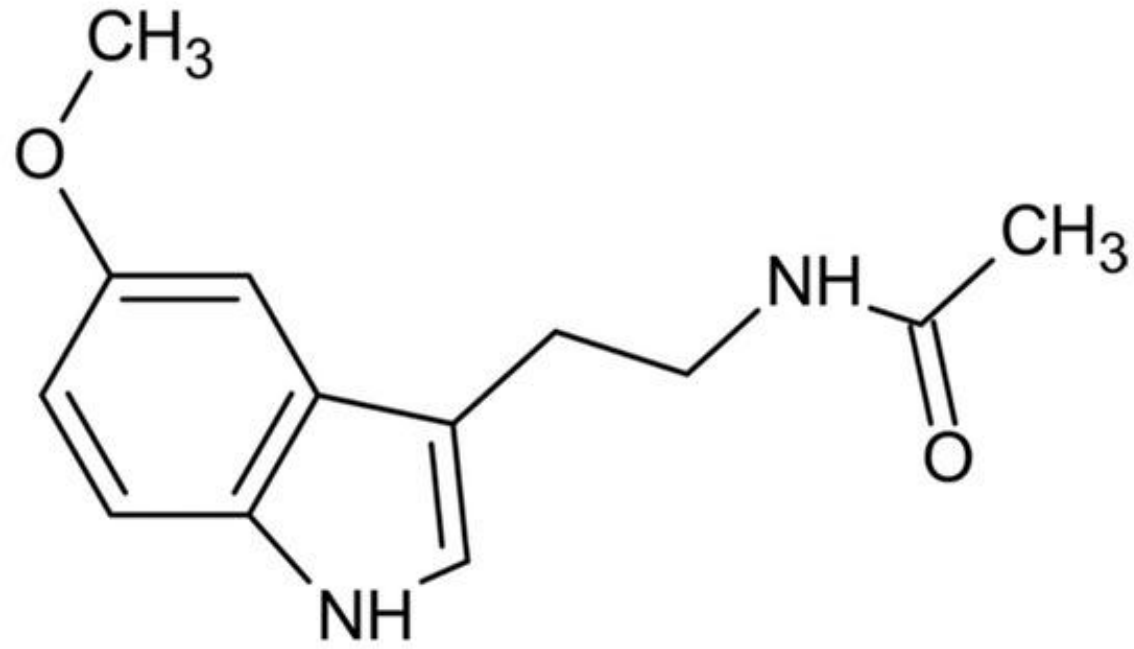
Choose the incorrect statement:

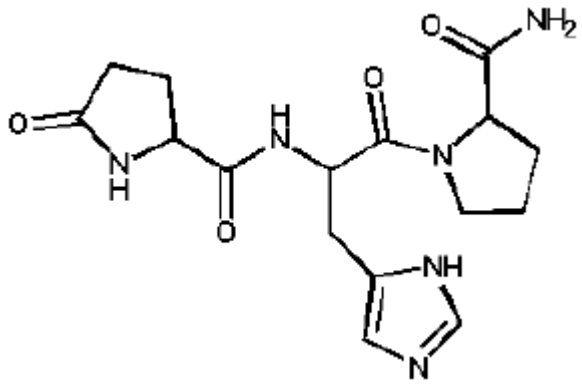
A. All anterior pituitary gland hormones are N-glycoproteins at Asn except for prolactin which is O-glycosylated
B. Both oxytocin and ADH are posterior pituitary hormones
C. In ADH, C- terminal is amidated to protect the hormone from degradation.
D. Oxytocin has (Ile and Leu) while ADH has (Phe and Ala)
E. 2 or more are incorrect

Answer:E

These structures are:

A. Tryptophan and melatonin
B. TRH and norepinephrine
C. PTH and insulin
D. TRH and melatonin
E. Glucagon and oxytocin

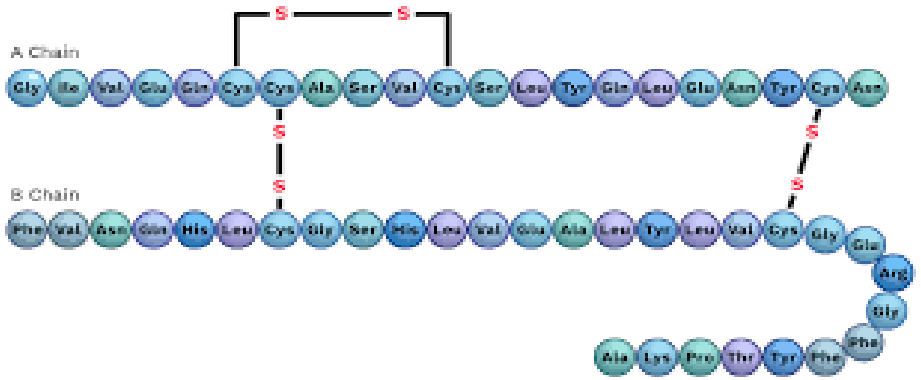


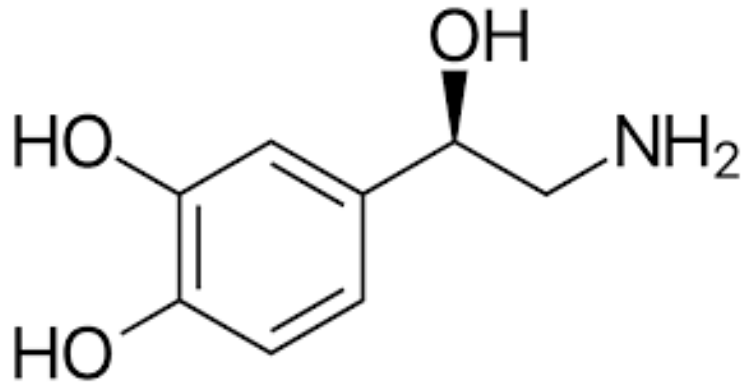


Answer: D

These structures are:

A. Epinephrine and Glucagon
B. Insulin and Norepinephrine
C. Melatonin and Tyrosine
D. Oxytocin and ADH
E. All are incorrect





Answer: B

Choose the incorrect statement:

A. Aromatase cleaves testosterone to estrogen
B. Steran is a steroid core with 5 fused rings
C. NO is synthesized when arginine is converted to citrulline
D. NOS-II are found in epithelial cells
E. 2 or more are incorrect

Answer:E

Choose the incorrect statement:

A. Cyanide, perchlorate and methimazole all stops T4 synthesis
B. Phe is carboxylated to produce Tyrosine
C. Phenylketonuria is a phenylalanine hydroxylase deficiency
D. MAO and COMT both break T4 and T3
E. 2 or more are incorrect

Answer:E

To synthesize aldosterone from pregnenolone you need:

A. 21-hydroxylase and 11-carboxylase
B. 3beta-HSD and 17,20 lyase
C. 17 alpha hydroxylase and aldosterone synthase
D. 3beta HSD, 21 hydroxylase
E. 3 SER enzymes

Answer:D

Choose the incorrect statement:

A. Pregnenolone → progesterone (3beta HSD enzyme)
B. Testosterone → dihydrotestosterone (5alpha reductase enzyme)
C. Testosterone → estradiol (11 beta hydroxylase)
D. Cholesterol → aldosterone (aldosterone synthase)
E. CYP19A1 is an Aromatase

Answer:C

True or False:

1. Insulin-sensitive protein kinase: activates protein phosphatase 1
2. STAT is phosphorylated on a tyrosine residue near the carboxyl terminus
3. Insulin bind to class R receptor
4. Somatostatin, TSH, LF and FSH all has disulfide bond
5. TRH is made from (glutamine, histidine and proline)
6. N-glycosylation occurs at (Asn) and O-glycosylation at (Gly)
7. NO can be given in hypertension cases
8. COMT: by taking a methyl group from the hydroxyl group

Answer: 1) T 2)T 3)F 4)T 5)F 6)F 7)F 8)F