Agonist Encyclopedia Article

Agonist

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An agonist is a drug or an endogenous substance that binds to a RECEPTOR (it has affinity for the receptor binding site) and produces a biological response (it possesses intrinsic activity). The binding of a drug agonist to the receptor produces an effect that mimics the physiological response observedwhen an endogenous substance (e.g., hormone, NEUROTRANSMITTER) binds to the same receptor. In many cases, the biological response is directly related to the concentration of the agonist available to bind to the receptor. As more agonist is added, the number of receptors occupied increases, as does the magnitude of the response. The potency (strength) of the agonist for producing the physiological response (how much drug is needed to produce the effect) is related to the strength of binding (the affinity) for the receptor and to its intrinsic activity. Most drugs bind to more than one receptor; they have multiple receptor interactions.

See Also

Agonist/Antagonist (Mixed); Antagonist)

Bibliography

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