

OPIOIDS GLOSSARY

1. **Abstinence syndrome** = withdrawal symptoms
2. **Affinity** = in crude terms, the "strength" of the interaction between a ligand and a receptor. When two ligands exist at equimolar concentration, the ligand whose affinity is higher will tend to displace the other from a receptor, assuming the low-affinity ligand is bound reversibly to the receptor.
3. **Agonist** = a compound that will bind to a receptor to form a complex which elicits a full pharmacological response, peculiar to the nature of the receptor involved.
4. **Antagonist** = a compound that will bind to a receptor to form a complex which does not give rise to any response, as if the receptor were unoccupied.
5. **Delta receptors** = a term used collectively to refer to two characterised subtypes of opioid receptors (delta-1, delta-2) that possess numerous features in common which are not present in the mu receptors or kappa receptors.
6. **Dynorphin** = an endogenous peptide which functions as a selective agonist for the kappa opioid receptors.
7. **Endorphin(s), beta-endorphin** = an endogenous peptide which functions as a selective agonist for the mu-opioid receptors.
8. **Endomorphin** = a term which refers to two small (5 amino-acids) endogenous peptides, known as endomorphin-1 and endomorphin-2, which function as mu-agonists with greater selectivity than beta-endorphin.
9. **Enkephalin** = one of a number of endogenous peptides which function as selective agonists for the delta-opioid receptors.
10. **Full agonist** = see "agonist"
11. **Inverse agonist** = in the context of receptors which exert some basic signalling activity even the absence of an agonist (characteristic known as "constitutive activity"), an agent which binds to a receptor, suppressing this activity to some degree.
12. **Intrinsic activity** = a measure of the maximum response to an agonist.
13. **Kappa receptors** = a term used collectively to refer to three characterised subtypes of opioid receptors (kappa-1, kappa-2, kappa-3) that possess numerous features in common which are not present in the mu receptors or delta receptors.
14. **Ligand** = molecule which binds to a receptor to form a complex.

15. **MMT (methadone maintenance therapy)** = medical treatment of addiction with the (less euphorogenic) opioid methadone
16. **Mixed agonist-antagonist** = see "**partial agonist**"
17. **Morphinan** = compound with the structural core or pharmacophore possessed by morphine and other opiates - not restricted to opiates
18. **Narcotic** = literally "sleep/stupor-inducing agent". Term usually applied indiscriminately to describe any exogenous compound with a "sedating" profile. Use of the term with reference to the opioids is not recommended, due to its ambiguity, and arguably negative connotation.
19. **Neurotransmitter** = any endogenous compound that plays a role in synaptic nervous transmission.
20. **Opiate** = compound containing the fundamental morphine or thebaine structure possessing some affinity to any, or all, of the opioid receptor subtypes. Examples are heroin, buprenorphine and naltrexone.
21. **Opioid** = any compound, peptide or otherwise, which, while not containing the fundamental morphine or thebaine structure, possesses some affinity for any, or all, of the opioid receptor subtypes. Common opioids are endorphin, fentanyl and methadone.
22. **Partial agonist** = a compound which possesses affinity for a receptor, but unlike a full agonist, will elicit only a small degree of the pharmacological response peculiar to the nature of the receptor involved, even if a high proportion of receptors are occupied by the compound.
23. **Pharmacophore** = the minimum functionality, or 3-D configuration of specific atoms or groups, that a molecule must have in order to exhibit biological activity.
24. **SAR (structure activity relationship)** = the relationship between the chemical structure of a psychoactive compound to its strength and/or effects
25. **Selectivity** = the relationship between the affinity of a compound for a particular receptor and its affinity for other types of opioid receptor. For instance, a compound that will bind with high affinity to the mu-receptors, but with very low affinity to kappa and delta receptors, is said to possess high selectivity for mu.
26. **Semi-synthetic opiate/opioid** = a compound with some opioid receptor affinity, synthesised by functional modification of a product extracted from opium.
27. **Synthetic opiate/opioid** = a compound with some opioid receptor affinity, synthesised using no products extracted from opium.