

• both $\alpha_{1,2}$ and $\beta_{1,2}$ -receptors

Adrenergic Receptor Type	Characteristics	Neurotransmitters that Combine With Receptors
α_1	Most common alpha receptor	Norepinephrine or Epinephrine
α_2	Less common alpha receptor	Norepinephrine or Epinephrine
β_1	Less common beta receptor (<i>found on cells in heart</i>)	Norepinephrine or Epinephrine
β_2	Most common beta receptor	Epinephrine (<i>Norepinephrine generally combines either weakly or not at all</i>)

Remember: Alpha receptor responses are predominantly **excitatory** in nature, while beta receptor responses are **excitatory** in nature in the heart and **inhibitory** elsewhere.

Comparison of Adrenergic Receptors		
Receptor	Site	Effect of Stimulation
α_1	Smooth muscle in blood vessels Stomach, intestine Kidney Liver	Vasoconstriction Decreased motility and tone Increased renin secretion Gluconeogenesis
α_2	Smooth muscle in the wall of the gut	Relaxation through inhibition
β_1	Cardiac Kidney	Increased rate and force of contraction Increased renin secretion
β_2	Bronchial, vascular, coronary arteriole, uterine smooth muscle, skeletal muscle Pancreas Liver	Vasodilation Decreased secretion Gluconeogenesis