

Nerve & Muscle Targets

1. Acetylcholinesterase (AChE) inhibitors
1A: Carbamates
1B: Organophosphates
2. GABA-gated chloride channel blockers
2A: Cyclodiene Organochlorines
2B: Phenylpyrazoles
3. Sodium channel modulators
3A: Pyrethrins, Pyrethroids
4. Nicotinic acetylcholine receptor (nAChR) competitive modulators
4A: Neonicotinoids
4F: Pyridylidenes
5. Nicotinic acetylcholine receptor (nAChR) allosteric modulators Site I
Spinosyns
6. Glutamate-gated chloride channel (GluCl) allosteric modulators
Avermectins, Milbemycins
14. Nicotinic acetylcholine receptor (nAChR) channel blockers
Nereistoxin analogues
22. Voltage-dependent sodium channel blockers
22A: Oxadiazines
22B: Semicarbazones
28. Ryanodine receptor modulators
Diamides
30. GABA-gated chloride channel allosteric modulators
Isoxazolines, Meta-diamides
32. Nicotinic acetylcholine receptor (nAChR) allosteric modulators Site II
GS-omega/kappa HXTX-HV1a Peptide
37. Vesicular acetylcholine transporter (VAcHT) inhibitor
Oxazosulfyl

Lepidoptera - Mode of Action Classification by Target Site



Unknown or uncertain MoA

Azadirachtin, Pyridalyl, Beauveria bassiana, Burkholderia spp, Paecilomyces fumosoroseus

Respiration Targets

13. Uncouplers of oxidative phosphorylation via disruption of the proton gradient
Pyrrroles
21. Mitochondrial complex I electron transport inhibitors
21A: METI acaricides and insecticides (Tolfenpyrad)
34. Mitochondrial complex III electron transport inhibitors – Qi site
Flometoquin

Midgut Targets

11. Microbial disruptors of insect midgut membranes
11A: Bacillus thuringiensis,
11B: Bacillus sphaericus
31. Baculoviruses
Host-specific occluded pathogenic viruses
Granuloviruses,
Nucleopolyhedroviruses

Growth & Development Targets

7. Juvenile hormone receptor modulators
7A: Juvenile hormone analogues (Hydroprene)
7B: Fenoxycarb
15. Inhibitors of chitin biosynthesis affecting CHS1
Benzoylureas
18. Ecdysone receptor agonists
Diacylhydrazines

