

CLAIMS

1. An isolated polynucleotide, comprising:
 - a) an aptamer RNA comprising an aptamer domain capable of binding graphene oxide in the presence of guanine, guanosine, and 2'-deoxyguanosine, and capable of eluting from graphene oxide by binding acyclovir or penciclovir;
 - b) a reverse complement of the aptamer RNA;
 - c) a coding DNA encoding the aptamer RNA; or
 - d) a reverse complement DNA encoding the reverse complement of the aptamer RNA,and
wherein the aptamer domain comprises a non-stem region encoded by a DNA that shares at least 80% sequence identity to any one of SEQ ID NOs: 108, 147, 164, 183, 198, 220, or 221, or a reverse complement thereof.
2. The isolated polynucleotide according to claim 1, wherein the aptamer domain comprises a non-stem region encoded by a DNA that shares at least 90% sequence identity to any one of SEQ ID NOs: 108, 147, 164, 183, 198, 220, or 221, or a reverse complement thereof.
3. An isolated polynucleotide according to claim 1 or claim 2, wherein the isolated polynucleotide comprises the reverse complement of the aptamer RNA, and wherein the isolated polynucleotide further comprises the reverse complement of a target polynucleotide encoding a target polypeptide operably linked to a promoter.
4. The isolated polynucleotide of claim 3, wherein the isolated polynucleotide further comprises the reverse complement of a function switching domain.