WHAT IS CLAIMED IS:

1. Use of a GDP-bound form of Rab1a ($Rab1a^{GDP}$), one or more expressible nucleic acids encoding $Rab1a^{GDP}$, or a combination thereof, for reducing cell viability of a cancer cell, or for preventing or treating cancer, in a subject in need thereof, or for reducing cell viability of a cancer cell *in vitro* or *in vivo*.

2. Use of a GDP-bound form of Rab1a ($Rab1a^{GDP}$), one or more expressible nucleic acids encoding $Rab1a^{GDP}$, or a combination thereof, in the manufacture of a medicament for reducing cell viability of a cancer cell, or for preventing or treating cancer, in a subject in need thereof, or in the manufacture of a medicament for reducing cell viability of a cancer cell *in vitro* or *in vivo*.

3. The use of claim 1 or 2, wherein the $Rab1a^{GDP}$ is or comprises $Rab1a^{S25N}$, $Rab1a^{N124I}$, $Rab1a^{D41N}$, $Rab1a^{D47N}$, or another dominant negative (DN) GDP-bound form of Rab1a.

4. The use of claim 1 or 2, wherein the $Rab1a^{GDP}$ comprises or consists of the amino acid sequence:

MSSMNPEYDYLFKLLLIGDSGVGKNCLLLRFADDTYTESYISTIGVDFKIRTIELD
GKTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDQESFNNVKQWLQEIDRYA
SENVNKLLVGNKCDLTTKKVVDYTTAKEFADSLGIPFLETSAKNATNVEQSFMTMA
AEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC

(SEQ ID NO: 6; Human $Rab1a^{S25N}$);

MGDYKDDDDKGGSGGSSMNPEYDYLFKLLLIGDSGVGKSCLLLRFADDTYTES
YISTIGVDFKIRTIELDGKTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDQESF
NNVKQWLQEIDRYASENVNKLLVGIKCDLTTKKVVDYTTAKEFADSLGIPFLETSAK
NATNVEQSFMTMAAEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC

(SEQ ID NO: 9; Mouse $Rab1^{N124I}$);

the amino acid sequence of human $Rab1a^{D41N}$; or

MSSMNPEYDYLFKLLLIGDSGVGKSCLLLRFADDTYTESYISTIGVNFKIRTIELD
GKTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDQESFNNVKQWLQEIDRYA
SENVNKLLVGNKCDLTTKKVVDYTTAKEFADSLGIPFLETSAKNATNVEQSFMTMA
AEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC

(SEQ ID NO: 18; Human Rab1a^{D47N});

or a polypeptide having at least 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity with any of these sequences and preferentially binding GDP.

5. The use of any one of claims 1-4, wherein the Rab1a^{GDP} is in the form of a fusion protein, wherein the Rab1a^{GDP} is fused or otherwise directly or indirectly linked, optionally via a linker, with a signalling or targeting peptide, a fluorescent peptide or other marker or tracer, or another peptide or non-peptide moiety for targeted delivery, facilitating cell uptake, increasing stability or *in vivo* half-life, or improving another therapeutic, diagnostic, or *in vivo* property of the Rab1a^{GDP}.

6. The use of claim 5, wherein the Rab1a^{GDP} is in the form of a fusion protein, and comprises the amino acid sequence:

MEDAKNIKKGPAPFYPLEDGTAGEQLHKAMKRYALVPGTIAFTDAHIEVNITYA
EYFEMSVRLAEAMKRYGLNTNHRIVVCSENSLQFFMPVLGALFIGVAVAPANDIYN
ERELLNSMNISQPTVVFVSKKGLQKILNVQKKLPIIQKIIIMDSKTDYQGFQSMYTFVT
SHLPPGFNEYDFVPESFDRDKTIALIMNSSGSTGLPKGVALPHRTACVRFSHARDPIF
GNQIIPDTAILSVVPFHHGFGMFTTLGYLICGFRVVLMYRFEEELFLRSLQDYKIQSAL
LVPTLFSFFAKSTLIDKYDLSNLHEIASGGAPLSKEVGEAVAKRFHLPGIRQGYGLTE
TTSAILITPEGDDKPGAVGKVVPFFEAKVVDLDTGKTLGVNQRGELCVRGPMIMSG
YVNNPEATNALIDKDGWLHSGDIAYWDEDEHFFIVDRLKSLIKYKGYQVAPAELESI
LLQHPNIFDAGVAGLPDDDAGELPAAVVVLEHGKTMTEKEIVDYVASQVTTAKKLR
GGVVFVDEVPKGLTGKLDARKIREILIKAKKGGKSKLMSSMNPEYDYLFKLLLIGDS
GVGKNCLLLRFADDTYTESYISTIGVDFKIRTIELDGKTIKLQIWDTAGQERFRTITSS
YYRGAHGIIVVYDVTDQESFNNVKQWLQEIDRYASENVNKLLVGNKCDLTTKKVV

DYTTAKEFADSLGIPFLETSAKNATNVEQSFMTMAAEIKKRMGPGATAGGAEKSNV
KIQSTPVKQSGGGCC

(SEQ ID NO: 21);

or a polypeptide having at least 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity therewith and preferentially binding GDP.

7. The use of claim 1 or 2, wherein the one or more expressible nucleic acids are DNA-based, or RNA-based.

8. The use of claim 7, wherein the one or more expressible nucleic acids transiently express the $Rab1a^{GDP}$ in the cell, or wherein the one or more expressible nucleic acids integrate in the cell genome and express the $Rab1a^{GDP}$ in the cell.

9. The use of claim 1 or 2, wherein the one or more expressible nucleic acids comprise one or more expression vectors, plasmids, or mRNAs encoding and capable of expressing the $Rab1a^{GDP}$ inside the cell.

10. The use of claim 9, wherein the one or more expressible nucleic acids comprise a nucleic acid sequence of:

ATGTCCAGCATGAATCCCGAATATGATTATTTATTCAAGTTACTTCTGATTGG
CGACTCAGGGGTTGGAAAGAATTGCCTTCTTCTTAGGTTTGCAGATGATACATAT
ACAGAAAGCTACATCAGCACAATTGGTGTGGATTTCAAAATAAGAACTATAGAG
TTAGACGGGAAAACAATCAAGCTTCAAATATGGGACACAGCAGGCCAGGAAAG
ATTTCGAACAATCACCTCCAGTTATTACAGAGGAGCCCATGGCATCATAGTTGTG
TATGATGTGACAGATCAGGAGTCCTTCAATAATGTTAAACAGTGGCTGCAGGAA
ATAGATCGTTATGCCAGTGAAAATGTCAACAAATTGTTGGTAGGGAACAAATGT
GATCTGACCACAAAGAAAGTAGTAGACTACACAACAGCGAAGGAATTTGCTGAT
TCCCTTGGAATTCCGTTTTTGGAAACCAGTGCTAAGAATGCAACGAATGTAGAAC
AGTCTTTCATGACGATGGCAGCTGAGATTAAAAAGCGAATGGGTCCCGGAGCAA

CAGCTGGTGGTGCTGAGAAGTCCAATGTTAAAATTCAGAGCACTCCAGTCAAGC
AGTCAGGTGGAGGTTGCTGCTAA

(Human Rab1a^{S25N} ORF Codon Sequence, SEQ ID NO: 5);

ATGGGGGACTACAAGGACGACGATGACAAGGGGGGTAGCGGTGGATCCAGC
ATGAATCCCGAATATGATTATTTATTCAAGTTACTTCTGATTGGCGATTCTGGGG
TTGGAAAGTCCTGCCTTCTCCTTAGGTTTGCAGATGATACGTATACGGAAAGCTA
CATCAGCACAATTGGTGTGGATTTCAAGATACGAACTATAGAGTTAGATGGGAA
AACAATCAAGCTACAGATATGGGACACAGCAGGCCAGGAAAGATTTCGAACAAT
CACTTCCAGTTATTACAGAGGAGCCCATGGCATCATAGTTGTGTATGATGTGACA
GATCAGGAGTCCTTCAATAACGTTAAACAGTGGCTGCAGGAGATAGATCGCTAC
GCCAGTGAAAATGTCAACAAGTTGTTGGTAGGGATCAAATGTGACCTGACCACA
AAGAAAGTAGTAGACTACACAACAGCAAAGGAATTTGCAGATTCCCTTGGAATT
CCATTTTTGGAAACCAGTGCTAAGAACGCAACGAATGTAGAACAGTCTTTCATG
ACGATGGCAGCTGAGATTAAAAAGCGAATGGGTCCTGGAGCTACAGCTGGTGGT
GCCGAGAAGTCCAATGTTAAAATCCAGAGCACTCCAGTCAAGCAGTCAGGTGGA
GGCTGCTGCTAA

(Mouse Rab1a^{N124I} ORF Codon Seqeunce, SEQ ID NO: 8); or

ATGTCCAGCATGAATCCCGAATATGATTATTTATTCAAGTTACTTCTGATTGG
CGACTCAGGGGTTGGAAAGTCTTGCCTTCTTCTTAGGTTTGCAGATGATACATAT
ACAGAAAGCTACATCAGCACAATTGGTGTGAACTTCAAAATAAGAACTATAGAG
TTAGACGGGAAAACAATCAAGCTTCAAATATGGGACACAGCAGGCCAGGAAAG
ATTTCGAACAATCACCTCCAGTTATTACAGAGGAGCCCATGGCATCATAGTTGTG
TATGATGTGACAGATCAGGAGTCCTTCAATAATGTTAAACAGTGGCTGCAGGAA
ATAGATCGTTATGCCAGTGAAAATGTCAACAAATTGTTGGTAGGGAACAAATGT
GATCTGACCACAAAGAAAGTAGTAGACTACACAACAGCGAAGGAATTTGCTGAT
TCCCTTGGAATTCCGTTTTTGGAAACCAGTGCTAAGAATGCAACGAATGTAGAAC
AGTCTTTCATGACGATGGCAGCTGAGATTAAAAAGCGAATGGGTCCCGGAGCAA
CAGCTGGTGGTGCTGAGAAGTCCAATGTTAAAATTCAGAGCACTCCAGTCAAGC

AGTCAGGTGGAGGTTGCTGCTAA

(Human Rab1a^{D47N} ORF Codon Sequence, SEQ ID NO: 17);

or a nucleic acid sequence having at least 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity therewith and encoding a Rab1a^{GDP} preferentially binding GDP;

or a nucleic acid sequence equivalent to any of the above sequences due to codon redundancy.

11. The use of claim 9, wherein the one or more expressible nucleic acids comprise a nucleic acid sequence of:

ATGGAAGACGCCAAAAACATAAAGAAAGGCCCGGCGCCATTCTATCCGCTA
GAGGATGGAACCGCTGGAGAGCAACTGCATAAGGCTATGAAGAGATACGCCCTG
GTTCCTGGAACAATTGCTTTTACAGATGCACATATCGAGGTGAACATCACGTACG
CGGAATACTTCGAAATGTCCGTTCGGTTGGCAGAAGCTATGAAACGATATGGGC
TGAATACAAATCACAGAATCGTCGTATGCAGTGAAAACTCTCTTCAATTCTTTAT
GCCGGTGTTGGGCGCGTTATTTATCGGAGTTGCAGTTGCGCCCGCGAACGACATT
TATAATGAACGTGAATTGCTCAACAGTATGAACATTTCGCAGCCTACCGTAGTGT
TTGTTTCCAAAAAGGGGTTGCAAAAAATTTTGAACGTGCAAAAAAAATTACCAA
TAATCCAGAAAATTATTATCATGGATTCTAAAACGGATTACCAGGGATTTCAGTC
GATGTACACGTTCGTCACATCTCATCTACCTCCCGGTTTTAATGAATACGATTTTG
TACCAGAGTCCTTTGATCGTGACAAAACAATTGCACTGATAATGAACTCCTCTGG
ATCTACTGGGTTACCTAAGGGTGTGGCCCTTCCGCATAGAACTGCCTGCGTCAGA
TTCTCGCATGCCAGAGATCCTATTTTTGGCAATCAAATCATTCCGGATACTGCGA
TTTTAAGTGTTGTTCCATTCCATCACGGTTTTGGAATGTTTACTACACTCGGATAT
TTGATATGTGGATTTCGAGTCGTCTTAATGTATAGATTTGAAGAAGAGCTGTTTT
TACGATCCCTTCAGGATTACAAAATTCAAAGTGCGTTGCTAGTACCAACCCTATT
TTCATTCTTCGCCAAAAGCACTCTGATTGACAAATACGATTTATCTAATTTACAC
GAAATTGCTTCTGGGGGCGCACCTCTTTCGAAAGAAGTCGGGGAAGCGGTTGCA
AAACGCTTCCATCTTCCAGGGATACGACAAGGATATGGGCTCACTGAGACTACA

TCAGCTATTCTGATTACACCCGAGGGGGATGATAAACCGGGCGCGGTCGGTAAA
GTTGTTCCATTTTTTGAAGCGAAGGTTGTGGATCTGGATACCGGGAAAACGCTGG
GCGTTAATCAGAGAGGCGAATTATGTGTCAGAGGACCTATGATTATGTCCGGTTA
TGTAAACAATCCGGAAGCGACCAACGCCTTGATTGACAAGGATGGATGGCTACA
TTCTGGAGACATAGCTTACTGGGACGAAGACGAACACTTCTTCATAGTTGACCGC
TTGAAGTCTTTAATTAAATACAAAGGATACCAGGTGGCCCCCGCTGAATTGGAGT
CGATATTGTTACAACACCCCAACATCTTCGACGCGGGCGTGGCAGGTCTTCCCGA
CGATGACGCCGGTGAACTTCCCGCCGCCGTTGTTGTTTTGGAGCACGGAAAGAC
GATGACGGAAAAAGAGATCGTGGATTACGTCGCCAGTCAAGTAACAACCGCCAA
AAAGTTGCGCGGAGGAGTTGTGTTTGTGGACGAAGTACCGAAAGGTCTTACCGG
AAAACTCGACGCAAGAAAAATCAGAGAGATCCTCATAAAGGCCAAGAAGGGCG
GAAAGTCCAAATTGATGTCCAGCATGAATCCCGAATATGATTATTTATTCAAGTT
ACTTCTGATTGGCGACTCAGGGGTTGGAAAGAATTGCCTTCTTCTTAGGTTTGCA
GATGATACATATACAGAAAGCTACATCAGCACAATTGGTGTGGATTTCAAAATA
AGAACTATAGAGTTAGACGGGAAAACAATCAAGCTTCAAATATGGGACACAGCA
GGCCAGGAAAGATTTCGAACAATCACCTCCAGTTATTACAGAGGAGCCCATGGC
ATCATAGTTGTGTATGATGTGACAGATCAGGAGTCCTTCAATAATGTTAAACAGT
GGCTGCAGGAAATAGATCGTTATGCCAGTGAAAATGTCAACAAATTGTTGGTAG
GGAACAAATGTGATCTGACCACAAAGAAAGTAGTAGACTACACAACAGCGAAG
GAATTTGCTGATTCCCTTGGAATTCCGTTTTTGGAAACCAGTGCTAAGAATGCAA
CGAATGTAGAACAGTCTTTCATGACGATGGCAGCTGAGATTAAAAAGCGAATGG
GTCCCGGAGCAACAGCTGGTGGTGCTGAGAAGTCCAATGTTAAAATTCAGAGCA
CTCCAGTCAAGCAGTCAGGTGGAGGTTGCTGCTAA

(SEQ ID NO: 19, MG-008 ORF DNA Sequence with 5’ Luciferase Tag); or

AUGGAAGACGCCAAAAACAUAAAGAAAGGCCCGGCGCCAUUCUAUCCGCU
AGAGGAUGGAACCGCUGGAGAGCAACUGCAUAAGGCUAUGAAGAGAUACGCC
CUGGUUCCUGGAACAAUUGCUUUUACAGAUGCACAUAUCGAGGUGAACAUCA
CGUACGCGGAAUACUUCGAAAUGUCCGUUCGGUUGGCAGAAGCUAUGAAACG
AUAUGGGCUGAAUACAAAUCACAGAAUCGUCGUAUGCAGUGAAAACUCUCUU

CAAUUCUUUAUGCCGGUGUUGGGCGCGUUAUUUAUCGGAGUUGCAGUUGCGC
CCGCGAACGACAUUUAUAAUGAACGUGAAUUGCUCAACAGUAUGAACAUUUC
GCAGCCUACCGUAGUGUUUGUUUCCAAAAAGGGGUUGCAAAAAAUUUUGAAC
GUGCAAAAAAAAUUACCAAUAAUCCAGAAAAUUAUUAUCAUGGAUUCUAAAA
CGGAUUACCAGGGAUUUCAGUCGAUGUACACGUUCGUCACAUCUCAUCUACCU
CCCGGUUUUAAUGAAUACGAUUUUGUACCAGAGUCCUUUGAUCGUGACAAAA
CAAUUGCACUGAUAAUGAACUCCUCUGGAUCUACUGGGUUACCUAAGGGUGU
GGCCCUUCCGCAUAGAACUGCCUGCGUCAGAUUCUCGCAUGCCAGAGAUCCUA
UUUUUGGCAAUCAAAUCAUUCCGGAUACUGCGAUUUUAAGUGUUGUUCCAUU
CCAUCACGGUUUUGGAAUGUUUACUACACUCGGAUAUUUGAUAUGUGGAUUU
CGAGUCGUCUUAAUGUAUAGAUUUGAAGAAGAGCUGUUUUUACGAUCCCUUC
AGGAUUACAAAAUUCAAAGUGCGUUGCUAGUACCAACCCUAUUUUCAUUCUU
CGCCAAAAGCACUCUGAUUGACAAAUACGAUUUAUCUAAUUUACACGAAAUU
GCUUCUGGGGGCGCACCUCUUUCGAAAGAAGUCGGGGAAGCGGUUGCAAAAC
GCUUCCAUCUUCCAGGGAUACGACAAGGAUAUGGGCUCACUGAGACUACAUC
AGCUAUUCUGAUUACACCCGAGGGGGAUGAUAAACCGGGCGCGGUCGGUAAA
GUUGUUCCAUUUUUUGAAGCGAAGGUUGUGGAUCUGGAUACCGGGAAAACGC
UGGGGCGUUAAUCAGAGAGGCGAAUUAUGUGUCAGAGGACCUAUGAUUAUGUC
CGGUUAUGUAAACAAUCCGGAAGCGACCAACGCCUUGAUUGACAAGGAUGGA
UGGCUACAUUCUGGAGACAUAGCUUACUGGGACGAAGACGAACACUUCUUCA
UAGUUGACCGCUUGAAGUCUUUAAUUAAAUACAAAGGAUACCAGGUGGCCCC
CGCUGAAUUGGAGUCGAUAUUGUUACAACACCCCAACAUCUUCGACGCGGGCG
UGGCAGGUCUUCCCGACGAUGACGCCGGUGAACUUCCCGCCGCCGUUGUUGUU
UUGGAGCACGGAAAGACGAUGACGGAAAAAGAGAUCGUGGAUUACGUCGCCA
GUCAAGUAACAACCGCCAAAAAGUUGCGCGGAGGAGUUGUGUUUGUGGACGA
AGUACCGAAAGGUCUUACCGGAAAACUCGACGCAAGAAAAAUCAGAGAGAUC
CUCAUAAAGGCCAAGAAGGGCGGAAAGUCCAAAUUGAUGUCCAGCAUGAAUC
CCGAAUAUGAUUAUUUAUUCAAGUUACUUCUGAUUGGCGACUCAGGGGUUGG
AAAGAAUUGCCUUCUUCUUAGGUUUGCAGAUGAUACAUAUACAGAAAGCUAC
AUCAGCACAAUUGGUGUGGAUUUCAAAAUAAGAACUAUAGAGUUAGACGGGA

AAACAAUCAAGCUUCAAAUAUGGGACACAGCAGGCCAGGAAAGAUUUCGAAC
AAUCACCUCCAGUUAUUACAGAGGAGCCCAUGGCAUCAUAGUUGUGUAUGAU
GUGACAGAUCAGGAGUCCUUCAAUAAUGUUAAACAGUGGCUGCAGGAAAUAG
AUCGUUAUGCCAGUGAAAAUGUCAACAAAUUGUUGGUAGGGAACAAAUGUGA
UCUGACCACAAAGAAAGUAGUAGACUACACAACAGCGAAGGAAUUUGCUGAU
UCCCUUGGAAUUCCGUUUUUGGAAACCAGUGCUAAGAAUGCAACGAAUGUAG
AACAGUCUUUCAUGACGAUGGCAGCUGAGAUUAAAAAGCGAAUGGGUCCCGG
AGCAACAGCUGGUGGUGCUGAGAAGUCCAAUGUUAAAAUUCAGAGCACUCCA
GUCAAGCAGUCAGGUGGAGGUUGCUGCUAA

(SEQ ID NO: 20, MG-008 ORF mRNA Sequence with 5’ Luciferase Tag);

or a nucleic acid sequence having at least 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity therewith and encoding a Rab1a^{GDP} preferentially binding GDP;

or a nucleic acid sequence equivalent to any of the above sequences due to codon redundancy.

12. A polypeptide comprising the amino acid sequence:

MSSMNPEYDYLFKLLLIGDSGVGKNCLLLRFADDTYTESYISTIGVDFKIRTIELD
GKTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDQESFNNVKQWLQEIDRYA
SENVNKLLVGNKCDLTTKKVVDYTTAKEFADSLGIPFLETSAKNATNVEQSFMTMA
AEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC

(SEQ ID NO: 6; Human Rab1a^{S25N});

MGDYKDDDDKGGSGGSSMNPEYDYLFKLLLIGDSGVGKSCLLLRFADDTYTES
YISTIGVDFKIRTIELDGKTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDQESF
NNVKQWLQEIDRYASENVNKLLVGIKCDLTTKKVVDYTTAKEFADSLGIPFLETSAK
NATNVEQSFMTMAAEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC

(SEQ ID NO: 9; Mouse Rab1^{N124I});

the amino acid sequence of human Rab1a^{D41N}; or

MSSMNPEYDYLFKLLLIGDSGVGKSCLLLRFADDTYTESYISTIGVNFKIRTIELD GKTIKLQIWDTAGQERFRTITSSYYRGAHGIIVVYDVTDQESFNNVKQWLQEIDRYA SENVNKLLVGNKCDLTTKKVVDYTTAKEFADSLGIPFLETSAKNATNVEQSFMTMA AEIKKRMGPGATAGGAEKSNVKIQSTPVKQSGGGCC

(SEQ ID NO: 18; Human Rab1a^{D47N});

or a polypeptide having at least 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity with any of these sequences and preferentially binding GDP;

for use in reducing cell viability of a cancer cell, or for preventing or treating cancer, in a subject in need thereof; or for use in reducing cell viability of a cancer cell *in vitro* or *in vivo*.

13. A pharmaceutical composition comprising

a GDP-bound form of Rab1a (Rab1a^{GDP}), one or more expressible nucleic acids encoding Rab1a^{GDP}, or a combination thereof; and

another anti-cancer agent.

14. The use of any one of claims 1-11, wherein the cancer is lung cancer, colon cancer, prostate cancer, gastric cancer, brain cancer, pancreatic cancer, oral cancer, breast cancer, ductal cancer, liver cancer, or cervical cancer.

15. The use of any one of claims 1-11, wherein the cancer is lung cancer adenocarcinoma, colorectal carcinoma, colon adenocarcinoma, cholangiocarcinoma, prostate carcinoma, embryonal rhabdomyosarcoma, gastric carcinoma, glioblastoma, colon adenocarcinoma, pancreatic ductal adenocarcinoma, squamous cell carcinoma of the oral cavity, squamous cell carcinoma of the oral cavity, pancreatic ductal adenocarcinoma, breast adenocarcinoma, breast adenocarcinoma, invasive ductal carcinoma, hepatocellular carcinoma, cholangiocarcinoma, squamous cell carcinoma of the oral tongue, papillomavirus-related endocervical

adenocarcinoma, colorectal carcinoma, or lung adenocarcinoma.

16. The use of any one of claims 1-11, wherein the cancer cell is selected from the group consisting of A549 cells, HCT116 cells, HT29 cells, HuCCT1, PC-3 cells, RD cells, SC-M1 cells, U-87MG cells, SW480 cells, PANC-1 cells, OECM-1 cells, OC2 cells, MIA PaCa-2 cells, MDA-MB-468 cells, MDA-MB-231 cells, MCF-7 cells, Mahlavu cells, HuCCT1 cells, HSC-3, HeLa cells, HCT116 cells, or A549 cells.

17. Use of $Rab1a^{DN}$ encapsulated lipid nanoparticles for reducing cell viability of a cancer cell *in vitro* or *in vivo*, for the treatment of cancer, or for reducing metastases in a patient.