CLAIMS

What is claimed is:

1. An isolated monoclonal antibody or antigen-binding fragment thereof which binds to the same periostin epitope as monoclonal antibody 4B4.B11 produced from a hybridoma deposited at the American Type Culture Collection (ATCC) under Deposit No. PTA-120210, monoclonal antibody 7B5.C4 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120211, or monoclonal antibody 3C11.G5 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120209.

2. An isolated monoclonal antibody or antigen-binding fragment thereof which competitively inhibits binding of monoclonal antibody 4B4.B11 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120210, monoclonal antibody 7B5.C4 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120211, or monoclonal antibody 3C11.G5 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120209 to periostin.

3. The isolated monoclonal antibody or fragment thereof of claim 1, comprising a heavy chain variable domain (VH) with three heavy chain complementarity determining regions (CDRs) VHCDR1, VHCDR2 and VHCDR3, and a light chain variable domain (VL) with three light chain CDRs VLCDR1, VLCDR2, and VLCDR3, wherein the CDRs of the isolated antibody or fragment thereof are identical to the CDRs of monoclonal antibody 4B4.B11 produced from a hybridoma deposited at the ATCC under Deposit No. PTA- 120210, monoclonal antibody 7B5.C4 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120211, or monoclonal antibody 3C11.G5 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120209.

4. The isolated monoclonal antibody or fragment thereof of claim 1 comprising a VH and a VL identical to the VH and VL of monoclonal antibody 4B4.B11 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120210, monoclonal antibody 7B5.C4 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120211, or monoclonal antibody 3C11.G5 produced from a hybridoma deposited at the ATCC under Deposit No. PTA-120209.

5. A hybridoma selected from a hybridoma deposited at the ATCC under Deposit No. PTA-120210, a hybridoma deposited at the ATCC under Deposit No. PTA-120211, a hybridoma deposited at the ATCC under Deposit No. PTA-120209, and a combination thereof.

6. An isolated monoclonal antibody or fragment thereof produced by the hybridoma of claim 5.

7. An antibody-producing cell culture comprising: a hybridoma selected from a hybridoma deposited at the ATCC under Deposit No. PTA-120210, a hybridoma deposited at the ATCC under Deposit No. PTA-120211, a hybridoma deposited at the ATCC under Deposit No. PTA-120209, and a combination thereof.

8. An isolated monoclonal antibody or antigen-binding fragment thereof produced by the antibody-producing cell culture of claim 7.

9. The isolated monoclonal antibody or fragment thereof of claim 1, wherein the isolated antibody or fragment or derivative thereof recognizes isoforms 1, 2, 3, 4, 7, and 8 of human periostin.

10. The isolated monoclonal antibody or fragment thereof of claim 1, wherein the antibody fragment is a Fab fragment, a Fab' fragment, a F(ab')2 fragment, a Fv fragment, or a single chain antibody molecule.

11. The isolated monoclonal antibody or fragment thereof of claim 1, wherein the antibody or fragment thereof further comprises a heterologous polypeptide fused thereto.

12. The isolated monoclonal antibody or fragment thereof of claim 11, wherein the heterologous polypeptide is a stabilizing polypeptide, a tag, a label, or a combination thereof.

13. The isolated monoclonal antibody or fragment thereof of claim 1, wherein the antibody or fragment thereof is conjugated to a heterologous moiety.

14. The isolated monoclonal antibody or fragment thereof of claim 13, wherein the heterologous moiety comprises one or more of: a peptide, a protein, an enzyme, a lipid, a heterologous antibody or fragment thereof, a detectable label, and/or polyethylene glycol (PEG).

15. The isolated monoclonal antibody or fragment thereof of claim 14, wherein the heterologous moiety comprises biotin, a ruthenium chelate, or acridinium.

16. A composition comprising the isolated monoclonal antibody or fragment thereof of claim 1.

17. An antigen-binding moiety of the isolated monoclonal antibody or fragment thereof of claim 1.

18. A kit comprising the isolated monoclonal antibody or fragment thereof of claim 1 and instructions for use.