**Supplementary Table 1: Antibodies used in western blot and immunocytochemistry**

| Antibody target | Antibody name/catalogue number | Supplier | Host / type of Antibody | Dilution |
|-----------------|--------------------------------|----------|-------------------------|----------|
| Rac1            | Clone 102/Rac1 (RUO)           | BD Biosciences | mouse, monoclonal       | WB: 1:1000 |
|                 | clone 23A8                    | Merck Millipore | mouse, monoclonal       | ICC: 1:1000 |
| AKT             | Akt Antibody #9272            | Cell Signaling | rabbit, polyclonal      | WB: 1:1000 |
| Phospho-AKT     | Phospho-AKT (Ser473) (193H12) #4058 | Cell Signaling | rabbit, monoclonal      | WB: 1:1000 |
| Erk1/2          | p44/42 MAPK (Erk1/2) #9102    | Cell Signaling | rabbit, monoclonal      | WB: 1:1000 |
| pERK1/2         | Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) #4370 | Cell Signaling | rabbit, monoclonal      | WB: 1:1000 |
| GAPDH           | GAPDH (D16H11) XP® #5174      | Cell Signaling | rabbit, monoclonal      | WB: 1:1000 |
| Peroxidase-coupled anti-Rabbit | Goat IgG anti-Rabbit IgG (H+L)-HRPO, MinX Hu, Ms, Rt (#111-035-144) | Dianova | rabbit, polyclonal      | WB: 1:10.000 |
| Peroxidase-coupled anti-Mouse | Goat IgG anti-Mouse IgG (H+L)-HRPO, MinX Hu, Bo, Ho, Rb, Sw (#115-035-146) | Dianova | mouse, polyclonal       | WB: 1:10.000 |
| Eu-labeled anti-Rabbit | ScanLater goat anti-Rabbit Eu-labeled (#R8204) | Molecular Devices | goat, Europium-labeled  | WB: 1:5000 |
| Eu-labeled anti-Mouse  | ScanLater goat anti-Mouse Eu-labeled (#R8205) | Molecular Devices | goat, Europium-labeled  | WB: 1:5000 |
| Alexa Fluor 488-labeled anti-mouse | Goat-anti mouse IgG (H+L) cross absorbed Alexa-Fluor Plus 488 (#A32723) | Invitrogen | goat, Alexa Fluor 488-labeled | ICC: 1:300 |