Supplemental Table 1. Clinical characteristics of CAD patients and controls.

| Characteristics         | Patient 1 | Patient 2 | Patient 3 | Control 1 | Control 2 | Control 3 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Age (years)             | 63        | 77        | 44        | 67        | 63        | 59        |
| Gender                  | Female    | Male      | Male      | Male      | Male      | Female    |
| Smoking                 | No        | No        | Yes       | Yes       | No        | No        |
| Hypertension            | Yes       | Yes       | No        | No        | Yes       | No        |
| Diabetes                | Yes       | Yes       | No        | No        | Yes       | No        |
| Lesion Artery Number    | Multi     | Single    | Multi     | No        | No        | No        |
| Severity of Artery Stenosis | Severe   | Slight   | Severe   | No        | No        | No        |

Severe: ≥75% luminal stenosis of any coronary vessel; Slight: 50%≤luminal stenosis of any coronary vessel<75%.

Supplemental Table 2. Clinical characteristics of CAD patients and controls.

| Characteristics         | Control (n=41) | CAD (n=84) | P value |
|-------------------------|----------------|------------|---------|
| Age (years)             |                |            | 0.001*  |
| ≤60                     | 22             | 19         |         |
| >60                     | 19             | 65         |         |
| Gender                  |                |            | 0.125   |
| Male                    | 21             | 55         |         |
| Female                  | 20             | 29         |         |
| Smoking                 |                |            | 0.034*  |
| Yes                     | 2              | 16         |         |
| No                      | 39             | 68         |         |
| Hypertension            |                |            | 0.071   |
| Yes                     | 21             | 57         |         |
| No                      | 20             | 27         |         |
| Diabetes                |                |            | 0.856   |
| Yes                     | 13             | 28         |         |
| No                      | 28             | 56         |         |
| CRP (mg/L)              | 3.93±12.43     | 12.84±25.65| 0.010*  |
| PLT (10^9/L)            | 166.20±46.05   | 171.67±52.81| 0.572   |
| FIB (g/L)               | 2.18±0.51      | 2.58±0.91  | 0.002*  |
| INR                     | 1.02±0.07      | 1.05±0.08  | 0.015*  |
| BUN (mmol/L)            | 4.99±1.59      | 6.10±2.29  | 0.007*  |
| Cr (μmol/L)             | 71.26±20.80    | 92.05±91.50| 0.154   |
| FBG (mmol/L)            | 6.56±2.92      | 6.77±2.77  | 0.692   |
| UA (μmol/L)             | 310.51±87.15   | 348.54±81.45| 0.018*  |
| TC (mmol/L)             | 4.03±0.95      | 4.27±1.04  | 0.228   |
| TG (mmol/L)             | 1.68±0.84      | 2.05±1.97  | 0.255   |
| HDL-C (mmol/L)          | 1.38±0.26      | 1.27±0.29  | 0.033*  |
| Subgroup        | OR     | 95%CI       | P value |
|-----------------|--------|-------------|---------|
| LDL-C (mmol/L)  | 2.05±0.66 | 2.25±0.74  | 0.135   |
| Lpa (mg/L)      | 240.08±215.54 | 244.73±242.96 | 0.917   |

CAD, Coronary Artery Disease; CRP, C-reaction protein; PLT, Platelet; FIB, Fibrinogen; INR, International Normalized Ratio; BUN, Blood Urea Nitrogen; Cr, Creatinine; FBG, Fasting Blood Glucose; UA, Uric Acid; TC, Total Cholesterol; TG, Triglyceride; HDL-C, High Density Lipoprotein-cholesterol; LDL-C, Low Density Lipoprotein-cholesterol; Lpa, Lipoprotein a.

* P < 0.05, & P < 0.01.

Supplemental Table 3. Stratification analyses of plasma exosome-encapsulated SOCS2-AS1 level with the risk of CAD.

| Subgroup       | OR     | 95%CI       | P value |
|----------------|--------|-------------|---------|
| Age (years)    |        |             |         |
| ≤60 (n=41)     | 0.327  | 0.111-0.961 | 0.042*  |
| >60 (n=84)     | 0.348  | 0.146-0.828 | 0.017*  |
| Gender         |        |             |         |
| Male (n=76)    | 0.334  | 0.148-0.753 | 0.008&  |
| Female (n=49)  | 0.279  | 0.089-0.873 | 0.028*  |
| CRP (mg/L)     |        |             |         |
| ≤10 (n=105)    | 0.322  | 0.165-0.629 | 0.001&  |
| >10 (n=20)     | 0.167  | 0.001-2.4592| 0.482   |
| FIB (g/L)      |        |             |         |
| <2.0 (n=35)    | 0.248  | 0.063-0.982 | 0.047*  |
| 2.0-4.0 (n=82) | 0.382  | 0.185-0.787 | 0.009&  |
| >4.0 (n=8)     | Null   | Null        | Null    |
| INR            |        |             |         |
| <0.8 (n=0)     | Null   | Null        | Null    |
| 0.8-1.2 (n=121)| 0.339  | 0.179-0.642 | 0.001&  |
| >1.2 (n=4)     | Null   | Null        | Null    |
| BUN (mmol/L)   |        |             |         |
| <3.1 (n=9)     | Null   | Null        | Null    |
| 3.1-8 (n=102)  | 0.338  | 0.174-0.660 | 0.001&  |
| >8 (n=14)      | Null   | Null        | Null    |
| UA (μmol/L)    |        |             |         |
| <214 (n=6)     | Null   | Null        | Null    |
| 214-688 (n=113)| 0.353  | 0.181-0.688 | 0.002&  |
| >688 (n=6)     | Null   | Null        | Null    |
| HDL-C (mmol/L) |        |             |         |
| ≤1.04 (n=24)   | 0.168  | 0.022-1.278 | 0.085   |
| 1.04-1.40 (n=56)| 0.271  | 0.083-0.883 | 0.030*  |
| >1.40 (n=45)   | 0.421  | 0.185-0.958 | 0.039*  |

OR, odds ratio; CI, confidence interval. CRP, C-reaction protein; FIB, Fibrinogen;
Supplemental Table 4. Clinical characteristics of mCAS patients and controls.

| Characteristics | Control (n=41) | mCAS (n=48) | P value |
|-----------------|---------------|-------------|---------|
| Age (years)     |               |             | 0.011*  |
| ≤60             | 22            | 13          |         |
| >60             | 19            | 35          |         |
| Gender          |               |             | 0.271   |
| Male            | 21            | 19          |         |
| Female          | 20            | 29          |         |
| Smoking         |               |             | 0.210   |
| Yes             | 2             | 6           |         |
| No              | 39            | 42          |         |
| Hypertension    |               |             | 0.501   |
| Yes             | 21            | 28          |         |
| No              | 20            | 20          |         |
| Diabetes        |               |             | 0.483   |
| Yes             | 13            | 12          |         |
| No              | 28            | 36          |         |
| CRP (mg/L)      | 3.93±12.43    | 3.80±9.67   | 0.955   |
| PLT (10^9/L)    | 166.20±46.05  | 160.40±51.23| 0.579   |
| FIB (g/L)       | 2.18±0.51     | 2.20±0.48   | 0.829   |
| INR             |               |             |         |
| BUN (mmol/L)    | 4.99±1.59     | 5.74±1.79   | 0.043*  |
| Cr (μmol/L)     | 71.26±20.80   | 67.81±13.23 | 0.363   |
| FBG (mmol/L)    | 6.56±2.92     | 6.22±1.91   | 0.513   |
| UA (μmol/L)     | 310.51±87.15  | 316.98±88.07| 0.729   |
| TC (mmol/L)     | 4.03±0.95     | 4.21±0.94   | 0.390   |
| TG (mmol/L)     | 1.68±0.84     | 1.80±0.95   | 0.541   |
| HDL-C (mmol/L)  | 1.38±0.26     | 1.45±0.47   | 0.428   |
| LDL-C (mmol/L)  | 2.05±0.66     | 2.10±0.63   | 0.702   |
| Lpa (mg/L)      | 240.08±15.54  | 217.91±207.66| 0.623   |

mCAS, mild coronary artery stenosis; CAD, Coronary Artery Disease; CRP, C-reactive protein; PLT, Platelet; FIB, Fibrinogen; INR, International Normalized Ratio; BUN, Blood Urea Nitrogen; Cr, Creatinine; FBG, Fasting Blood Glucose; UA, Uric Acid; TC, Total Cholesterol; TG, Triglyceride; HDL-C, High Density Lipoprotein-cholesterol; LDL-C, Low Density Lipoprotein-cholesterol; Lpa, Lipoprotein a.

* P < 0.05, & P < 0.01.
Supplemental Table 5.

Univariate analysis and multiple logistic regression analysis for the risk of mCAS.

| Models                               | OR   | 95%CI        | P value |
|--------------------------------------|------|--------------|---------|
| Univariate analysis                  | 0.438| 0.253-0.758  | 0.003&  |
| Multiple logistic regression model¹  | 0.494| 0.275-0.886  | 0.018*  |
| Multiple logistic regression model²  | 0.491| 0.274-0.881  | 0.017*  |
| Multiple logistic regression model³  | 0.499| 0.274-0.908  | 0.023*  |
| Multiple logistic regression model⁴  | 0.439| 0.223-0.864  | 0.017*  |
| Multiple logistic regression model⁵  | 0.462| 0.223-0.957  | 0.038*  |
| Multiple logistic regression model⁶  | 0.170| 0.056-0.518  | 0.002&  |

OR, odds ratio; CI, confidence interval.

The model¹ included age, gender, smoking, and SOCS2-AS1 level; The model² included age, gender, smoking, hypertension, and SOCS2-AS1 level; The model³ included age, gender, smoking, hypertension, diabetes, FBG, and SOCS2-AS1 level; The model⁴ included age, gender, smoking, hypertension, diabetes, FBG, BUN, Cr, UA, and SOCS2-AS1 level; The model⁵ included age, gender, smoking, hypertension, diabetes, FBG, BUN, Cr, UA, CRP, PLT, FIB, INR and SOCS2-AS1 level; The model⁶ included age, gender, smoking, hypertension, diabetes, FBG, BUN, Cr, UA, CRP, PLT, FIB, INR, TC, TG, HDL-C, LDL-C, Lpa, and SOCS2AS1 level.

* P < 0.05, & P < 0.01.