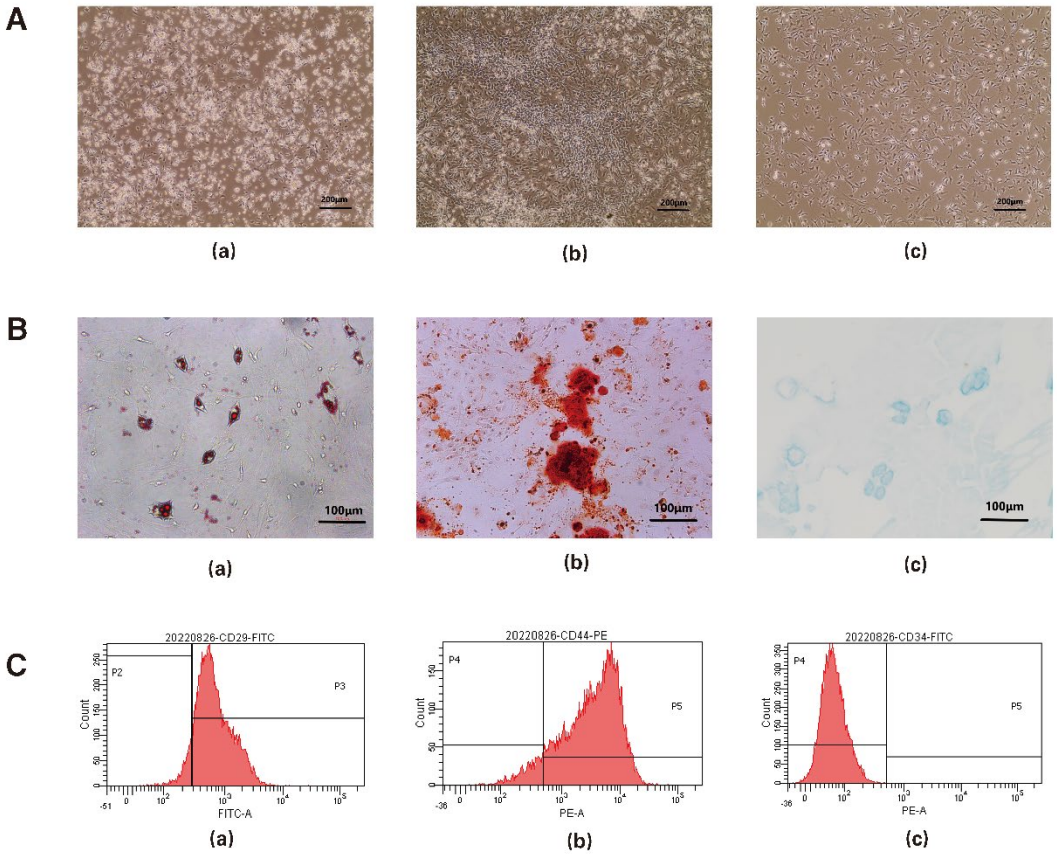
Supplementary Table 1. The Plasma levels of glucose, creatinine and urea nitrogen in rats

Hematological indicators	NC (n=5)	DM (n=5)	Met (n=5)	Exo (n=5)
Glucose(mmol/L)	6.14±1.34#	35.40±3.17	24.06±2.11#	12.01±7.10#
Urea nitrogen(mmol/L)	4.67±0.86#	7.93±0.93	5.54±1.61#	4.09±1.47#
Creatinine(μmol/L)	20.18±4.08#	36.02±6.00	26.90±3.64#	24.22±10.74#

#$p < 0.05$ compared with DM group.

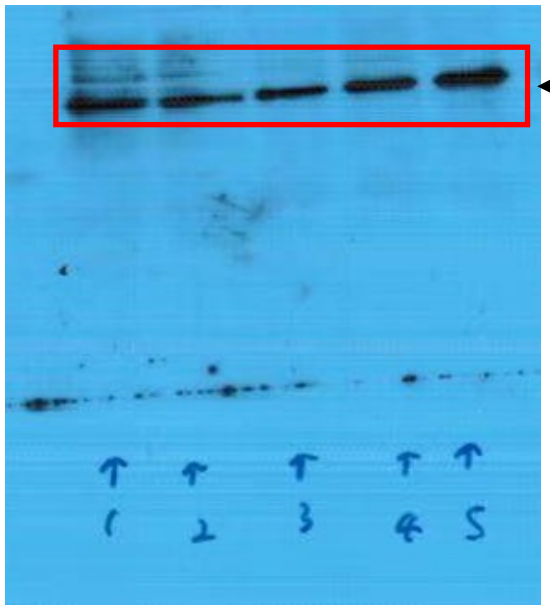


Supplementary Figure 1. Identification of bone marrow mesenchymal stem cells

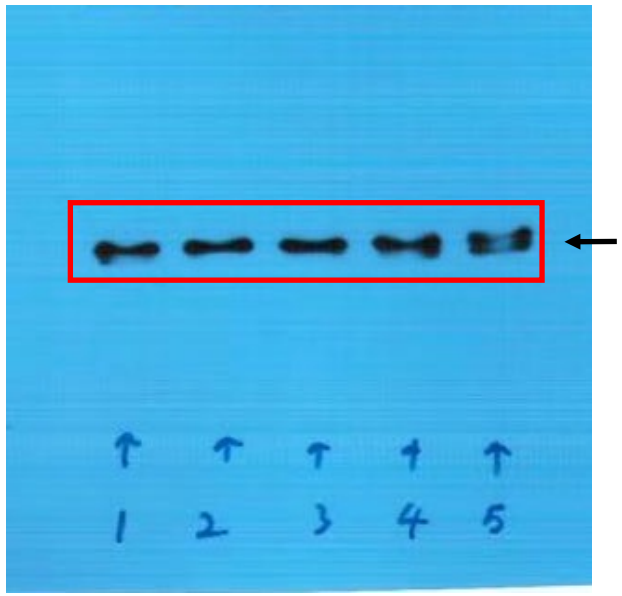
A. Under the light microscope, BMSCs have a fibroblast-like morphology, with oval nuclei in the center of the cells, and when the density is high, they grow in a spiral or radial shape A(a), A(b). As the number of divisions increased, BMSCs became large and flat A(c). A(a) P0 generation on the 4th day(100×), A(b) P0 generation on the 7th day(100×), A(c): P1 generation on the 10th day(100×). B. The BMSCs cultured in this experiment have the potential of multilineage differentiation. B (a) Oil red O staining showed that BMSCs were induced to differentiate into adipocytes(200×). B (b) Alizarin red staining showed that BMSCs were induced to differentiate into osteocytes(200×). B(c) Alician blue staining showed that BMSCs were induced to differentiate into chondrocytes(200×). C. Flow cytometry showed that the detected cells positively expressed CD29 and CD44, but not CD34.

Exosome marker

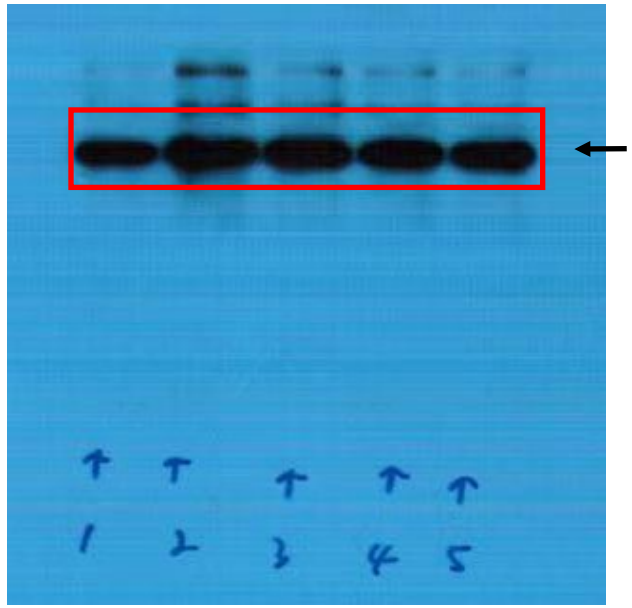
CD81



CD9

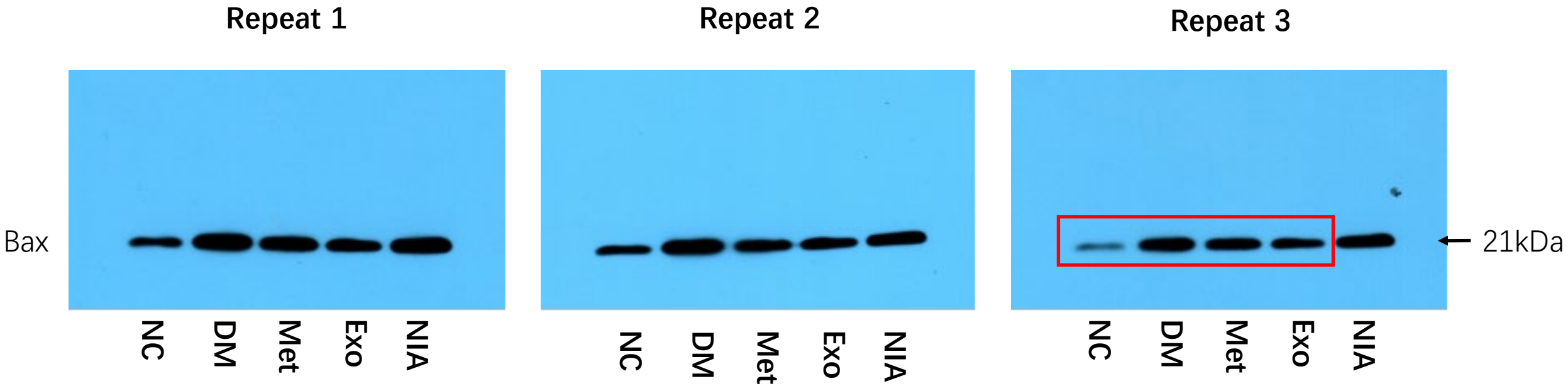


GAPDH



Representative strip

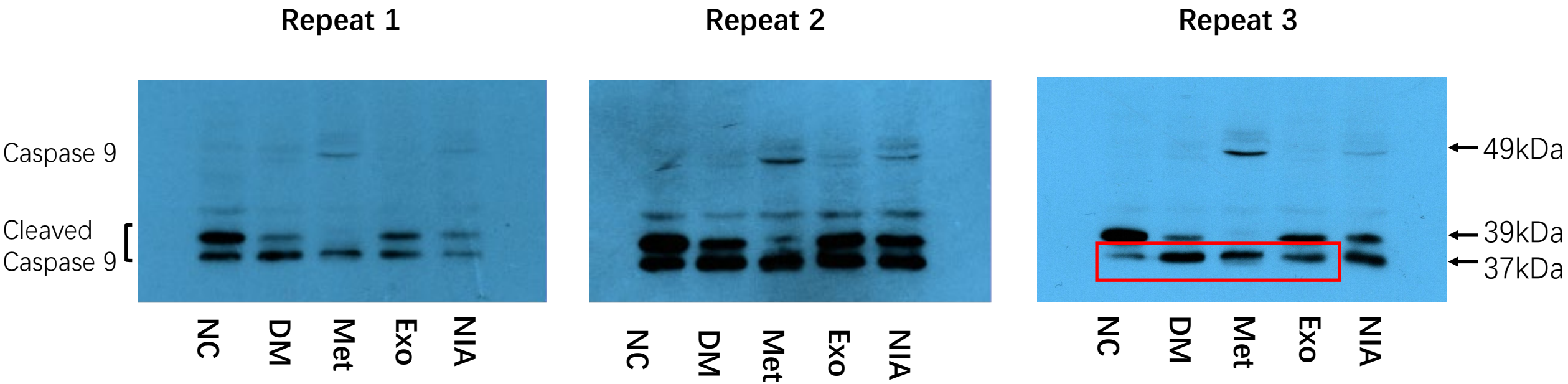
Bax antibody（Abcam，Cat.ab32503，1:2000）



NIA，non-interest area.

Representative strip

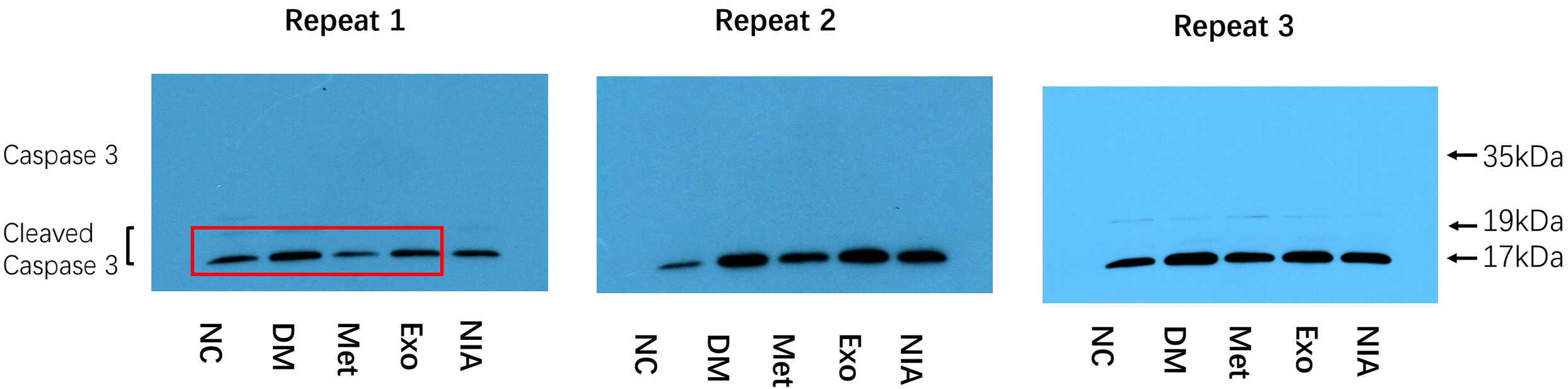
Caspase-9 antibody（CST，Cat.#9504，1:2000）



NIA，non-interest area.

Representative strip

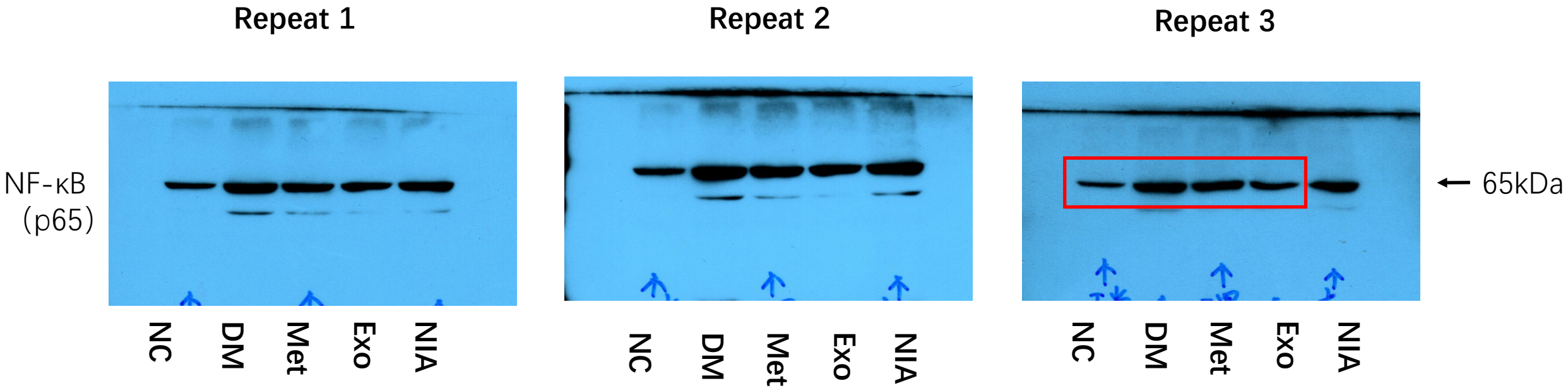
Caspase-3 antibody（CST，Cat.#14220，1:2000）



NIA，non-interest area.

Representative strip

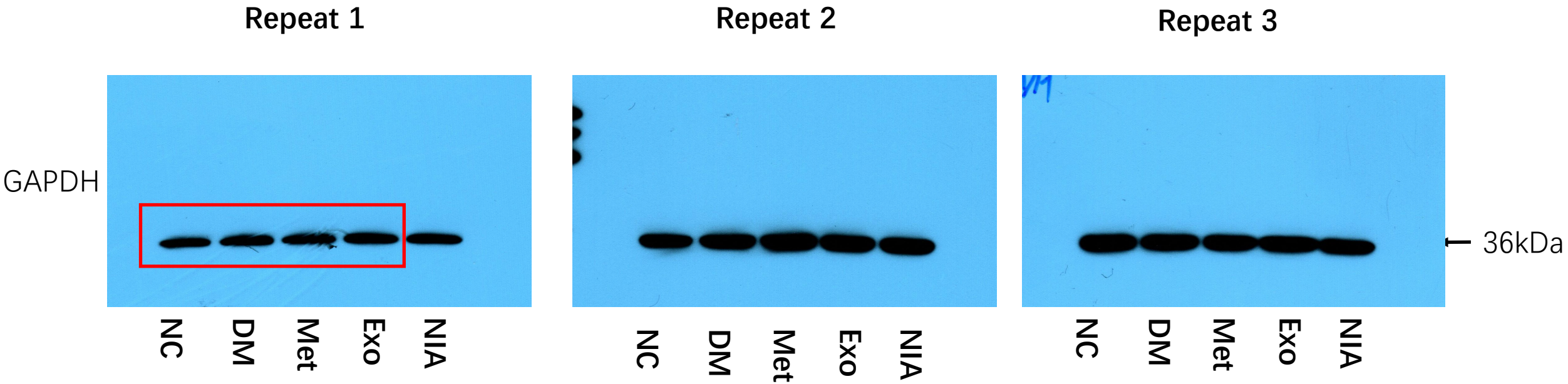
p65 antibody（CST，Cat.8242S，1:2000）



NIA，non-interest area.

Representative strip

GAPDH antibody（Proteintech，Cat.60004-1-Ig，1:5000）



NIA，non-interest area.

Representative strip