Supplementary Information

Evaluating Platelet Activation Related to the Degradation Products of Biomaterials Using Molecular Markers

Sheng Ye[a], Panxianzhi Ni[a], Hong Wang[b], Tun Yuan[a,*], Jie Liang[a,*], Yujiang Fan[a], Xingdong Zhang[a]

[a] National Engineering Research Center for Biomaterials, Sichuan University, Chengdu 610064, P. R. China

[b] Institute of Blood Transfusion, Chinese Academy of Medical Science & Peking Union Medical College, Chengdu, Sichuan, China.

* Corresponding authors

E-mail addresses: Stalight@163.com (T. Y.), Jie_l88@126.com (J. L.)

This part is the result of platelet activation of the negative control material polyethylene.

It can be seen from Fig. 1 that after the polyethylene degradation products are in contact with rabbit blood, the concentration of the molecular markers has not changed significantly compared with the blank control.

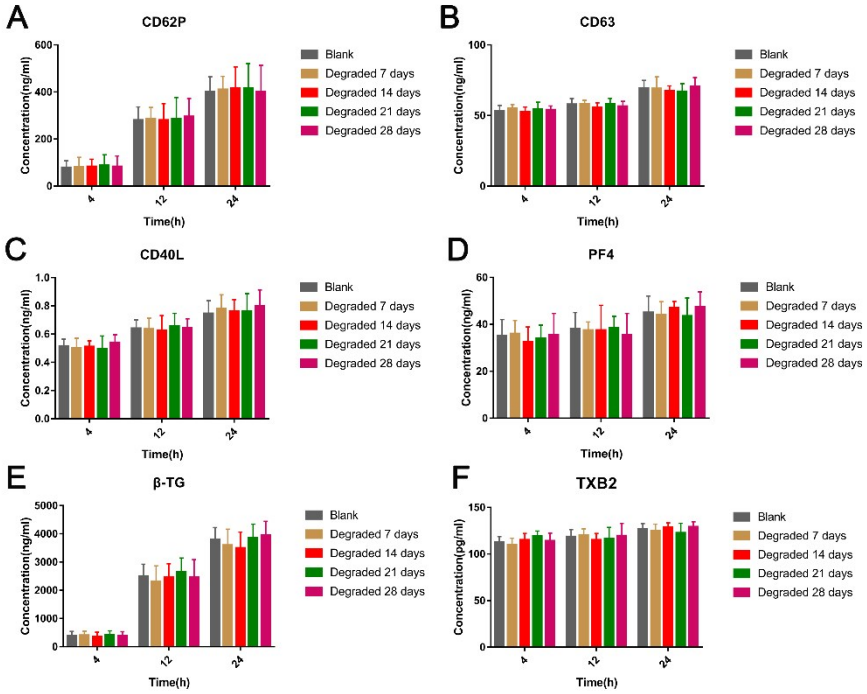

Fig.S1. Platelet activation assessed in degradation products of polyethylene at different degradation times by measurements of molecular markers (CD62P, CD63, CD40L, PF4, β-TG, and TXB2). (A) to (F) CD62P, CD63, CD40L, PF4, β-TG, and TXB2 concentration, respectively. Data expressed as mean ± S.E.; n = 9 with samples exposed to blood from three different rabbits and three distinct samples for each rabbit. * $P < 0.05$.

This part is the process of preparing and storing plasma.

Prepare plasma by centrifugation according to the instructions in the kit instructions 1. Centrifuge samples 4 °C for 20 minutes at 2000×g, then centrifuge the separated plasma at 4 °C for 10 minutes at 10000×g, and the supernatant was taken.

2. Diluting the plasma according to the instructions in the kit, and the plasma was diluted by 0.01mol/L PBS (PH=7.0-7.2). Transfer the diluted plasma to a 0.5ml sterile enzyme-free EP tube and store at -80 °C.

Details of the kits used in the study in Table 1.

Table 1 Details of the kits in the study

Kits	Serial number	Dilution factor	Diluents
P-Selectin (CD62P)	SEA569Rb	10	PBS
Tetraspanin 30 Cluster of Differentiation 63 (CD63)	SEB345Rb	10	PBS
Cluster of Differentiation 40 Ligand (CD40L)	SEA119Rb	10	PBS
Platelet factor 4 (PF4)	SEA172Rb	10	PBS
Beta-thromboglobulin (β-TG)	SEA370Rb	500	PBS
Thromboxane B2 (TXB2)	CEA877Ge	Not diluted	PBS

"Rb" represents rabbit, and "Ge" represents pan-species (General). The PBS in the table is 0.01 mol/L Phosphate Buffer Solution (PH=7.0-7.2).