

Supplemental Data

Figure legends

Supplemental Fig.S1 Expression of human Kv1.3 and Kv1.5 (hKv1.3 and hKv1.5) channels in THP-1 macrophages and THP-1 derived foam cells. Both channels were assayed by Western blotting using the commercial antibodies. A: Expression levels of hKv1.3 channels in THP-1 macrophages and THP-1 derived foam cells. $n=3$. $P>0.05$. B: Expression levels of hKv1.5 channels in THP-1 macrophages and THP-1 derived foam cells. $n=3$. $P>0.05$.

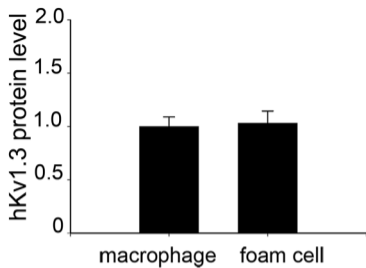
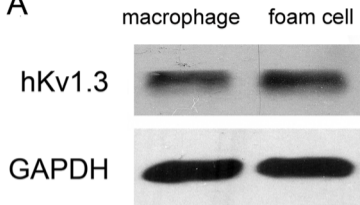
Supplemental Fig.S2 Specificity and plasma membrane binding of the hKv1.3-E314 antibody and the hKv1.5-E313 antibody in THP-1 macrophages. Specificity of both the antibodies were examined by Western blotting and bindings to plasma membrane were detected by immunofluorescent staining. A: The hKv1.3-E314 antibody specifically recognized human Kv1.3 (hKv1.3) proteins in THP-1 macrophages, whereas the recognition was absent when the hKv1.3-E314 antibody was preincubated with an excess of the E314 peptide. $n=3$. $P>0.05$. B: The hKv1.5-E313 antibody specifically recognized human Kv1.5 (hKv1.5) proteins in THP-1 macrophages, whereas the recognition was absent when the hKv1.5-E313 antibody was preincubated with an excess of the E313 peptide. $n=3$. $P>0.05$. C: Plasma membrane was stained with green fluorescence in THP-1 macrophages incubated with the hKv1.3-E314 antibody as a primary antibody, whereas no membrane fluorescence was detected when the hKv1.3-E314 antibody was preincubated with an excess of the E314 peptide. D: Plasma membrane was stained with green fluorescence in THP-1

macrophages incubated with the hKv1.5-E313 antibody as a primary antibody, whereas no membrane fluorescence was detected when the hKv1.5-E313 antibody was preincubated with an excess of the E313 peptide. Nuclei were stained with blue fluorescence by using DAPI labelling.

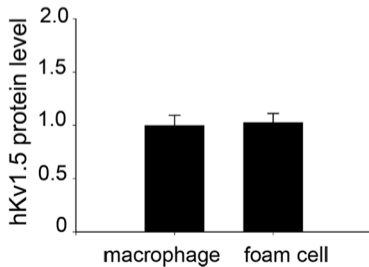
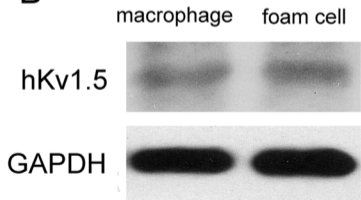
Supplemental Fig.S3 Effect of the hKv1.3-E314 antibody or the hKv1.5-E313 antibody on outward delayed rectifier potassium currents in THP-1 macrophages. Representative traces from the recordings of cells in the absence or presence of the hKv1.3-E314 antibody or the hKv1.5-E313 antibody are shown. A: The hKv1.3-E314 antibody inhibited outward delayed rectifier potassium currents in a concentration-dependent manner, as shown in I-V relationship. B: At depolarizing pulse +60 mV, current densities of cells in the presence of the hKv1.3-E314 antibody ranging from 37.5 nM to 300 nM were compared with the absence of the hKv1.3-E314 antibody. C: The 300 nM hKv1.5-E313 antibody had no significant effect on outward delayed rectifier potassium currents, as shown in I-V relationship. D: At depolarizing pulse +60 mV, current densities of cells in the presence of the 300 nM hKv1.5-E313 antibody were compared with the absence of the hKv1.5-E313 antibody. $n=6$. * $P<0.05$, ** $P<0.01$, $P>0.05$.

Fig.S1

A



B



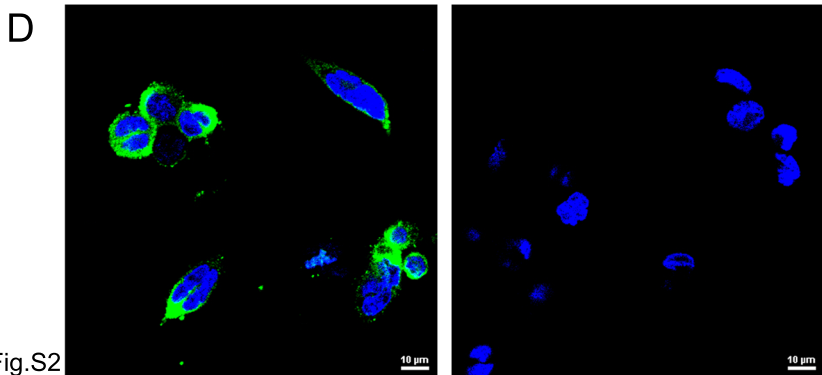
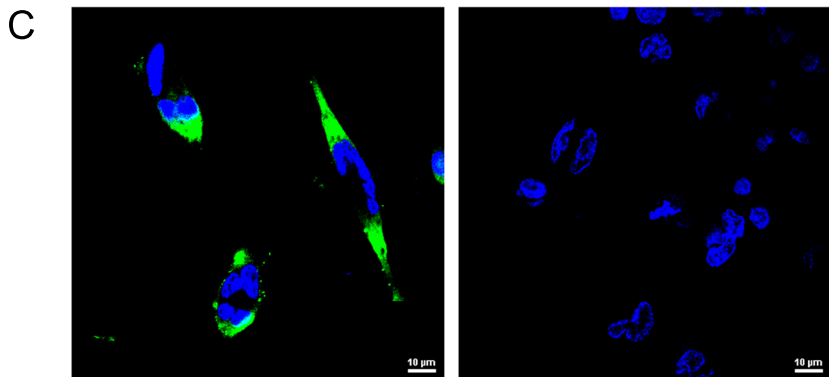
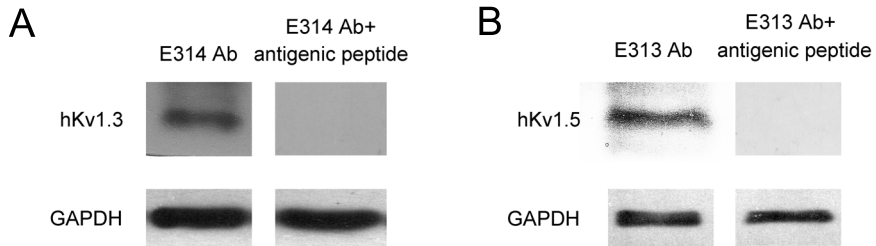


Fig.S2

