

**Table S1.** Expression of kinesin family members in HUVECs

Name	Identifier	RT-PCR	Immunofluorescence	WB
Kif 1A	NM_004321	+		
Kif 1B	NM_015074	+		
Kif 1C	NM_006612	+		
Kif 2A	NM_016338	+		+
Kif 2C	NM_006845	+	+	
Kif 3B	NM_004798	+	+	+
Kif 3C	NM_002254	+		
Kif 4	NM_012310	+		
Kif 5B	NM_004521	+	+	
Kif 5C	AB011103	+		
Kif 9	NM_182902	+		
Kif 11	NM_004523	+		
Kif 13A	NM_022113	+		
Kif 13B	NM_015254	+		
Kif 14	NM_014875	+		
Kif 15	NM_020242	+		
Kif 17	NM_020816	— <sup>a</sup>	+	+
Kif 18	NM_031217	+		
Kif 20A	NM_005733	+		
Kif 22	NM_007317	+		
Kif 23	NM_138555	+		
Kif 26A	AB033062	+		
Kif C3	NM_005550	+		
KLC1	NM_005552	+		
KLC4	NM_201521	+		

Kinesin family members (KIFs) detected in HUVECs. KIF-specific primers were designed, and specificity was verified by BLAST analysis against the human genome. Total RNA was isolated from resting cultured HUVEC monolayers at passage 2 using the RNeasy kit (QIAGEN). cDNA was prepared by RT with Superscript II and oligo-dT (Invitrogen). Each kinesin was amplified by PCR using two sets of specific primers (Jaulin, F., X. Xue, E. Rodriguez-Boulan, and G. Kreitzer. 2007. *Dev. Cell.* 13:511–522). GAPDH or cyclofilin primers were used as controls. Out of the 41 human *KIFs*, the 30 shown in the table were routinely detected in HUVECs. Some of these could be detected by Western blot (WB) and immunofluorescence staining in HUVECs with a limited number of commercially available anti-KIF antibodies. The identifier is the nucleotide accession number (available from GenBank/EMBL/DBJ). <sup>a</sup>PCR was negative for the following kinesins: Kif 5A, Kif 12, Kif 20A, Kif 21A, Kif 21B, Kif 27, and KLC2. PCR was also negative for Kif 17 despite positive immunofluorescence and Western blot.